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HEALTH WORK IN AKRON

A Summary of Six Years' Work - 1912 to 1917

together with

ANNUAL REPORT FOR 1918.

HEALTH WORK PRIOR TO 1916.

BOARD OF HEALTH.

The Board of Health consists of five members appointed by the Mayor and confirmed by the Council. The members of the Board serve without compensation and the term of each is 5 years., One member retires each year, his successor being duly appointed by the Mayor.

During the period under review, the Board held regular monthly meetings at which time the reports of the officers were received, bills were approved and passed and miscellaneous business connected with the routine work of the department and the abatement of nuisances was transacted. The work of the Board was handled thru the following standing committees; Finance, Sanitary, Public Buildings and Sewers. Two additional committees were appointed in 1915, one the Contagious Disease Hospital Committee and the other the Employes Committee.

From time to time, regulations were promulgated dealing with the licensing and inspection of food products and the abatement of nuisances. These new regulations aroused protest sometimes on the part of merchants and vendors and the Board on some occasions did not stand by its own regulations. The Minutes of the Board show that on May 2nd, 1912, ice cream manufacturers appeared before the Board relative to the regulations concerning the sale of ice cream cones on the street. The matter was referred to the Sanitary Committee. Under date of May 22, 1912, we read the following:

"The Sanitary Committee to whom was referred the manner of peddling of ice cream and hoky poky would recommend that the enforcement of the ordinance in regard to these two articles be suspended during 1912. The

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report of the Committee was adopted."

Under date of February 1, 1912 we find that dairymen and producers objected to the ordinance requiring producers and shippers of milk and other farm products to take out licenses and to charge $1.00 for the license, on the ground that

"action of the Board of Health is not only unconstitutional in that it prohibits what has been considered the inalienable right of producers to place their products on the market, but it interferes with the putting of these products on the market at the lowest price."

These quotations have been given to show the attitude of the public toward public health regulations and because they reveal a lack of appreciation and conception of the functions and duties of a modern Health Department. The people were not yet alive to the importance and necessity of having a wide awake progressive health department, and this idea had yet to be "sold" to the City of Akron.

Early in January 1914, a scheme of cooperation was worked out between the Health Department and the Municipal University, which is deserving of special mention. Students were designated as Sanitary Inspectors and empowered to serve notices regarding installation and repair of sewers, removal of garbage, etc., and were to work under the supervision of the Health Officer.

ORGANIZATION.

Officers and employes of the Board consisted of a part time Health Officer, a Clerk and Registrar of Vital Statistics, City Chemist, two Sanitary Policemen, a Dairy and Food Inspector and a Dog Catcher.

The Health Officer was a practicing physician who had held the position almost continuously from 1891 to 1916. He received $1200 a

year and devoted only a part of his time to the work.

The Clerk and Registrar of Vital Statistics received a salary of $720 a year and the fees paid by the State for the registration of birth and death certificates at the rate of 20¢ a certificate. He kept the minutes of the Board of Health, received complaints, issued orders to the Sanitary Policemen and was in general charge of the office work.

The City Chemist received part of his salary from the Board of Health and a part from the Service Department and combined the duties of making chemical and bacteriological examinations for the Board of Health and of making physical and chemical tests for the Service Department. Starting about 1912, a health laboratory was established in one of the rooms of the Contagious Disease Hospital and later when the City took over the Municipal University, the laboratory work was carried on at the University. The bacteriological examinations were confined almost entirely to Diphtheria cultures, and the chemical examinations dealt mostly with milk and water.

During the years 1913, 1914 and 1915 the total number of bacteriological examinations were 450,505 and 649 respectively and nearly all of them were for the control of Diphtheria. A beginning was made in the use of laboratory in the diagnosis of diseases but it was only a beginning.

Two Sanitary Policemen were employed at $900 a year each whose duties consisted chiefly of placarding quarantine houses, fumigating the houses and attending to the complaints of nuisances which were received by the department. The chief nuisances abated had to do with garbage, yards cleaned up, chickens cooped, manure removed and vaults cleaned, the most of which have only a remote connection with the control of disease.

One Dairy and Food Inspector at a salary of $1500 had charge of all the dairy, meat and food inspection work. This branch of health service was entirely inadequate. A considerable number of inspections were made, but the methods employed left little record of efficiency. During 1912, 1913 and 1914 there were 501, 526 and 690 milk permits issued respectively, while the total inspections reported for dairy, retail milk plants and milk wagons was 146, 2 and 42 respectively. Standard score cards were not used in the work and the results of inspection were not published so that the inspection work was of little value to the individual proprietors scored or to the public.

A Contagious Disease Hospital was maintained for the care and treatment of Diphtheria, and Scarlet Fever cases and a Detention Hospital for Small Pox cases.

The reporting of disease was lax and incomplete, especially for Tuberculosis and Typhoid Fever cases. In 1912 there were 17 deaths from Typhoid Fever and only 36 cases reported. Since the mortality of Typhoid Fever is about 6 per thousand, it is safe to assume that there were probably 100 existing cases. In 1914 there were three times as many deaths from Tuberculosis as there were cases reported, and twice as many in 1915. There was little organized effort to prevent and control the spread of disease. There was no medical inspector and such medical work as was done was performed by the Health Officer who served only part time. There were no city nurses. The only nursing service performed was that done by the nurses employed by the larger factories and the Visiting Nurses Association. There were no infant welfare clinics, and little or no educational work along health lines.

The work of the Health Department during this period consisted largely of keeping account of births, deaths and communicable diseases,

endeavoring to put down epidemics whenever they occurred, using the laboratory to some extent in the control of Diphtheria, quarantine, fumigation and isolation of communicable diseases, abatement of nuisances and a limited amount of food inspection. Numerous wells were condemned. Rubbish, garbage and manure nuisances abated, sanitary sewers ordered and general clean-ups effected. There seems to have been a lack of plan and program and organized effort to keep the community well, which is the key note of modern public health work.

The total expenditures for health work amounted to about $16,000 a year at which figure it remained practically constantly for the period 1912 to 1915, both inclusive. Based on the census figure for population, this represented a per capita expenditure of about 20¢. The average per capita expenditure for health work in all American cities having a population of 30,000 is about 40¢. The larger the city, the greater their per capita expenditures for health. Cities having a population of 500,000 or over spend on the average 50¢ per capita, and the average for cities between 100,000 and 300,000 is about 30¢ per capita.

Sanitary surveys of 330 cities in the Central and Eastern states made by the U. S. Public Health Service shows that the smaller the city, the smaller the per capita expenditure for health work, and as a consequence the lower the sanitary rating and the higher its death rate from typhoid fever as well as other preventable diseases.

The following table shows the result of these surveys .

Population Cities Thousands	No. of Cities	Aver. Ex. Per Capita Cents	Aver. San. Rate	Av. Typhoid Death Rate
(1) 0- 5	82	9.1	52.3	31.6
(2) 5- 10	56	12.0	61.6	31.1
(3) 10- 20	99	16.8	69.8	22.6
(4) 20- 25	26	20.6	70.9	23.3
(5) 25- 50	33	24.6	73.9	22.1
(6) 50-100	16	25.7	76.5	13.9
(7) 100-300	18	39.1	80.8	17.9
Tot. Average City	330	22.7	66.7	29.1

The expenditures of the Health Department are given in the following table for the period under review. There is given also the contributions made to hospitals and the expenditures for certain other purposes.

DISTRIBUTION OF EXPENDITURES

OF THE

HEALTH DEPARTMENT

	1912	1913	1914	1915	1916	1917
General Administration	2,475	2,272	2,139	3,046	5,730	7,553
Sanitary	2,083	1,949	2,309	2,083	2,937	5,820
Quarantine	5,990	3,099	1,759	1,094	956	1,305
Inspection (Food Products)	1,529	1,510	1,539	1,573	1,553	2,830
Contagious Disease Hpspital	3,218	6,902	5,569	7,538	9,939	13,180
Miscellaneous	1,135	225	380			
Dog Catcher		97	1,200	1,237	1,324	
Child Welfare					6,094	27,453
Div. of Communicable Disease					729	3,862
Div. of Laboratory					1,830	3,485
Total	$16,430	16,054	14,997	16,571	31,092	65,488
Population(Estimated)	85,000	92,000	99,000	100,000	125,000	150.00
Per Capita Cost	.19	.17	.15	.16	.24	.43

CHARITIES AND CORRECTIONS.

Akron City Hospital	13,493	15,735	6,558	21,763	6,155	7,000
Mary Day Nursery	2,483			3,000	4,000	2,500
Peoples Hospital				68	2,845	4,000
Pay Patients	990		1,147			
Outdoor Relief	9,425	9,758	14,382	13,751	10,975	12,178
City Jail			1,026	740		
Cleveland Work House			2,430	2,384		
Humane Society				600	500	600
Total	26,391	25,493	25,543	48,706	24,475	23,678

THE NEW HEALTH WORK IN AKRON.

INCREASED INTEREST IN HEALTH WORK.

Some of the influential citizens and large employers of labor began to stimulate interest in the activities of the Health Department in the latter part of 1915. These men employed doctors and nurses in their own organizations to look after the health interests of their own employes, but they soon realized that they had control over their employes only during working hours - about one-third of each day and that during the remaining hours of the day their employes were subjected to all the health hazards existing either in their own homes or in the community at large.

These men also saw the tremendous economic loss which resulted from sickness and ill health to the community at large. In order to prevent this loss and to save hundreds of lives which were being lost thru lack of adequate control over disease, and to make Akron a healthier, better place in which to live, a movement was started to revitalize the Health work in Akron and make it an effective instrument in improving the social envirement.

In the winter of 1915, Dr. Ogden of Cornell University was brot to Akron to make a survey of the organization of the Health Department. His report contained recommendations for the organization of a Health Department along modern lines. The plan of organization and health program was clearly defined and the next step was to secure the funds and the men to put the program into operation. Some of the influential citizens led by Mr. E. C. Shaw of the B. F. Goodrich Co. entered into an agreement with the Board of Health to the effect that if the Board of Health and the Council would appropriate all the money that the City could afford

for health purposes, they would contribute an additional sum to make a total budget of $50,000, if necessary, to carry on health work along modern lines and get a modern Health Department in operation in Akron; and with the further agreement that the city would then stand the expense in carrying the work on. This plan was agreed to.

The Board of Health provided a salary of $3500 for a full time Health Officer and on April 6, 1916, Dr. J. J. McShane of Kenosha, Wis. was appointed Health Officer. Dr. McShane proceeded to build up an organization.

A full time Epidemiologist and a full time Bacteriologist were appointed. Later a trained public health nurse was secured to organize a Child Welfare Department. During the year 1916, the Health activities of the City cost approximately $30,000 of which $12,500 was contributed by interested citizens. This represented a per capita cost of about 73¢. The following year, 1917, these new health services were in operation thruout the year and the total expenditures increased to about $65,000 of which amount $2500 was contributed by interested citizens. The budget for 1918 is based upon an estimated expenditure of $80,000 all of which it is contemplated will be contributed by the City itself. A modern health organization is now provided for and the City is bearing the total cost.

In July 1917, Dr. J.J.McShane resigned and the city was without a Health Officer until December when Dr. C. T. Nesbitt took charge. Representatives of the National Organization of Public Health Nurses visited Akron in May and July and assisted in the centralization and coordination of the public health nursing work. It was planned to have all the nursing work done by the several factory organizations co-ordinated under the supervision and direction of the Health Department, but this broad general plan has not as yet been consumated.

The new Health Officer, Dr. C. T. Nesbitt, found it necessary to make a complete re-organization of the department. The proposed plan of organization and the program of the Health Department will be discussed in a succeeding chapter.

HEALTH CONDITIONS IN AKRON.

CONTROL OF COMMUNICABLE DISEASES.

The reports from physicians of existing cases are the starting point in exercising control over communicable diseases. During a part of the year 1916 and thruout the year 1917 a full time Epidemiologist was employed in this work. The number of cases of communicable diseases reported increased from 958 in 1915 to 2126 in 1916 and to 4447 in 1917. Twice as many cases were reported in 1917 as in 1916 and five times as many as in 1915. A part of this increase is due to an increase in the number of cases and a part is undoubtedly due to better reporting on the part of physicians. The activities of the visiting nurses are undoubtedly responsible for more complete reporting on the part of physicians since they find many cases not previously reported by physicians and in this way bring the laxity of the physicians to the attention of the department. Much remains to be accomplished along the line of better reporting. For example, in 1914, there were 59 deaths from Tuberculosis and only 17 cases reported; in 1915 there wefe 70 deaths and only 39 cases reported; in 1916 there were 165 cases and 64 deaths and in 1917 there were 227 cases reported and 103 deaths. It is estimated that the percent of mortality of Tuberculosis is about 20%. 103 deaths would, on this basis, mean 515 existing cases. Since only 227 cases were reported this means that only about one-half of the tuberculosis cases are now being reported. The ratiobetween cases rep orted and deaths for Meningitis is 29%; for Poliomyelitis 36%; for Typhoid Fever 31%; for Whooping Cough 16% and for Erysipelas 56%. These ratios are still too large and reveal the need for more careful reporting.

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From the records of the Department, the endemic index has been computed for each of the reportable communicable diseases. This index is the average number of cases reported each month over a series of years. By comparing the number of cases reported in any given month with this average or endemic index, the administrative officer can tell whether an epidemic is developing and take precautionary measures to check the spread of the disease.

SERIOUS EPIDEMICS IN 1916 qand 1917.

The increase in the number of communicable diseases has been very large during the years 1916 and 1917; in fact so large as to constitute a real epidemic. During the 4 years 1912 to 1915, the average number of cases of Measles was 90. In 1916 there were 668 cases and in 1917, 1572 cases. For Diphtheria the average number of cases during the 4 preceding years was 340. In 1916 and 1917 there were 509 and 821 cases respectively. The average number of cases of Small Pox for the 5 preceding years was 30. In 1917 there were 368 cases. The average number of cases of Whooping Cough was 10. In 1916 and 1917, there were 112 and 93 cases respectively. For Chicken Pox, the average for 4 years was 54 and in 1917, there were 256 cases. Mumps were not reported prior to 1915, but during 1916 there were 114 cases and 546 cases in 1917. There were 142 cases of Cerebro Spinal, Meningitis reported in 1917. Complete details of these diseases for the past 6 years will be found in the appendix, Exhibit 1, which also shows the computed endemic index by months. The following table shows the total number of cases reported and the total deaths resulting.

TABLE SHOWING NUMBER OF CASES REPORTED, DEATHS AND PERCENTAGE OF DEATHS.

	1912			1913			1914			1915			1916			1917		
DISEASE	REP.	DEA THS	PER CENT	REP.	DEA THS	PER CENT	REP.	DEA THS	PER CENT	REP.	DEA THS	PER CENT	REP.	DEA THS	PER CENT	REP.	DEA THS	PER CENT
Scarlet Fever	410	18	4%	159	6	3%	174	7	3%	279	5	1%	384	4	1%	172	2	1%
Diphtheria	458	26	5%	365	18	4%	289	7	2%	211	0	0%	509	23	4%	821	72	8%
Memb.Croup	43	9	20%	33	7	21%	14	1	7%	4	1	25%	12	3	25%	-	-	-
Typhoid Fever	36	17	47%	66	15	22%	84	23	27%	118	24	20%	61	20	32%	105	33	16%
Small Pox	1	0	0	22	0	0	82	0	0	45	0	0	2	0	0	368	1	2/10%
Measles	72	1	1%	45	0	0	188	2	1%	54	0	0	668	43	6%	1572	22	1%
Poliomyelitis	1	0	0	-	-	-	6	2	33%	60	12	20%	21	5	23%	52	19	36%
Whooping Cough	6	3	50%	21	9	42%	1	2	200%	11	2	18%	112	40	30%	86	14	16%
Chicken Pox	-	-	-	30	0	0	72	0	0	90	10	11%	26	0	0	256	0	0
Meningitis							17	10	58%	5	0	0	8	6	75%	142	42	29%
Mumps										2	0	0	114	0	0	546	1	1/10%
Opthal. Neon.							11	0	0	12	00	0	-	-	-	8	0	0
Trachoma							31	0	0	19	0	0	20	0	0	50	0	0
Tuberculosis							17	59	346%	39	70	179%	165	64	38%	227	103	45%
Erysipelas										7	1	14%	10	20	200%	45	26	57%
Inflamation of Eyes										2	0	0	14	0	0	-	-	-
Total	1027	74		741	55		986	113		958	125		2126	228		4447	335	

TYPHOID FEVER CONTROL INADEQUATE.

During 1917 there were 105 cases of Typhoid Fever reported and the average for the past 5 years has been 94 cases. There were 32 deaths from this disease. Since Typhoid Fever is an absolutely preventable disease, there is need for increased attention to this disease in tracing out and eradicating the cause.

Excellent results have been secured by typhoid vaccinations in the United States Army where the number of cases per thousand were reduced from 6.7 in 1901 to .07 per thousand in 1914. In municipal work, vaccination is not so easily accomplished as the Health Department cannot exercise the same rigid control as in the Army and hence sanitation is the only logical typhoid prevention effort in municipalities. However, in cases of epidemics, vaccination can be successfully used.

OPTHALMIA NEONATORIUM CONTROL.

This disease is the most common cause of blindness of infants. In 1917 there were 8 cases reported. In addition, there were 14 cases of Inflamation of the Eye reported and 50 cases of Trachoma, some of which may have been proved Opthalmia. Since this disease can be effectively treated by prompt and proper treatment at birth, it needs very careful consideration from the Health Department.

DIPHTHERIA CONTROL.

Special attention has been paid to this disease by the Health Department and especially to Diphtheria carriers, that is, individuals who having had Diphtheria and having apparently recovered still remain capable of transmitting the disease to others. During 1917 there were 27 children excluded from schools because of suspected Diphtheria and 77 because of suspected Diphtheria carriers. The Laboratory made 17,655 bacterio-

logical examinations during the year in the diagnosis and control of this disease. The Shick test, a skin test, by means of which it may be determined whether a person is immune to Diphtheria is not being used because of lack of sufficient help. Dr. Wm. H. Park of the Research Laboratory of New York City says regarding this test:

> "The Shick re-action can be applied with advantage in testing the patients, residents, staff and nurses of contagious disease hospitals. By its use a considerable saving can be effected in anti-toxin during outbreaks of Diphtheria in institutions or in homes; it relieves the fear of contagion and also avoids unnecessary vaccination of about one-half of exposed individuals."

SMALL POX CONTROL.

There were 368 cases of Smallpox reported in 1917. The New York Health Department deems 250 cases of Smallpox in the State of New York a sufficient number to cause comment. The Bulletin says

> "Smallpox is again becoming prevalent in many parts of New York State among those who have neglected or purposely avoided vaccination. Unless unvaccinated people generally resort to this measure, it is highly probable that a large number of people will be incapicitated by this highly contagious disease. At a time when everyone should be working at his greatest efficiency, such neglect shows lack of consideration for one's self, one's community and one's country."

This disease is too prevalent in Akron. There is no provision by law for general compulsory vaccination. Compulsory vaccination in schools is in the hands of the Board of Education and not within the jurisdiction of the Board of Health by provision of the statute. Many states make vaccination practically compulsory by making it a requirement for admission to school.

PNEUMONIA CONTROL.

Pneumonia is a disease which deserves as much attention as

Diphtheria. There were 275 deaths from the various kinds of Pneumonia in 1917.

Broncho Pneumonia	154
Lobar Pneumonia	151
All other kinds	20

VENEREAL DISEASES CONTROL.

There is a widespread movement everywhere today to remove the veil of false modesty that cloaks these diseases and regard them as reportable communicable diseases dangerous to public health. Many states and cities now require reporting of Gonorrhoea and Syphilis as other diseases are reported. Altho it has not been made reportable in Akron, the labroatory made 46 examinations in 1917 for physicians to assist in the diagnosis of these diseases.

The establishment of clinics for the treatment by prophylaxis of Syphilis and Gonorrhoea so that patients will not drift into the hands of the drug clerk or quack specialists is now regarded as a public health function and the need for this work is very great in Akron. Such additional laboratory services and equipment as will enable the Health Department to perform Wassermann blood tests free of charge for physicians whose patients are unable to pay is also amuch needed requirement. This is the standard laboratory test for the diagnosis for these diseases. The present impediment ot the establishment of such clinics is the lack of hospital facilities for the care of such cases. Hospitalization for venereal cases must be provided. Infected women must be segregated until cured. Provision for such a hospital is urgently needed.

CAMPAIGN AGAINST PATENT MEDICINES AND QUACKS.

Another feature of health service needed in Akron is a consistent campaign against the use of patent medicines and against the quack specialists. The large floating male population in Akron makes this a splendid field for the so-called specialist to play upon the credulity

and purse of the public.

RABIES CONTROL NEEDED.

The preports of the Dairy and Food inspector, who is also charged with the investigation of cases of dog bites, show that each year during the past 6 years an average of 106 persons have been bitten by dogs. In 1915, 37 positive cases of Rabies were found and 33 persons were given the Pastuer treatment; in 1916 there were 9 positive cases of Rabies; in 1917 there were 4 positive cases and 15 persons were given treatment.

The situation raises the question as to whether more effective steps should not be taken than have yet been taken to protect the citizens of Akron from this great menace to health. There should be strict enforcement of the ordinance which we now have providing for the muzzling of dogs.

HOSPITAL FACILITIES NEEDED.

The hospital facilities of the City are very limited. The Epidemiologist states that "at least 1000 hospital beds are needed."

Additional facilities are needed at the contagious disease hospital. Last year 531 patients were cared for while there were over four thousand cases of communicable and contagious diseases in the city.

The rates charged for hospital service are $1.00 per day in wards and $2.50 per day in private rooms. Pay patients are permitted to employ a physician of their choice. Charity patients, unable to pay, receive care and treatment by the hospital staff without charge. Formerly a detention hospital for the treatment of Smallpox cases was maintained by the department. During the last year this has been sold. The following table gives the details of the operation of the contagious disease hospital for the period under review.

CONTAGIOUS DISEASE HOSPITAL

	1912	1913	1914	1915	1916	1917
Patients						
On Hand January 1					20	20
Number admitted					375	511
Number dismissed	86	218	188	194	379	509
Number on hand end of yr	16	7	11	20	16	22
Nature of Disease						
Scarlet Fever	31	57	58	86	139	60
Diphtheria	44	161	130	108	226	334
Membraneous Croup	11					
Small Pox						62
Eryeipelas					4	21
Infantile Paralysis					2	22
Mistaken Diagnosis					7	12
Total						
Total	86	218	188	194	379	511
Kind of Patients						
Pay	54	132	111	106	91	
Charity	32	86	77	88	288	
Deaths						
Diphtheria	3	8	1	4		13
Scarlet Fever		3	2	2		1
Membraneous Croup	2					
Meningitis						15
Total	5	11	3	6		29
Receipts	523.28	1306.50	1441.55	1672.56	2864.70	3822.03
Expenses	3218.00	6102.00	5569.00	7538.00	9939.00	12361.81
Patient Days	1130	2976	3103	3340	5775	6127
Cost Per Patient Day	2.79	2.05	1.79	2.25	1.71	2.02

SANITARY POLICEMEN.

Three sanitary policemen are engaged in routine, sanitary inspection, investigation of nuisances, complaints, quarantining and fumigating houses. The scope of the work will be found in detail in Table 4.

Just how important this work is, is a question to be seriously considered. The question arises as to the desirability of discontinuing the terminal fumigation and in the second place the possibility of turning over to the regular police force a large part of the routine inspectional work.

TABLE IV.

SUMMARY OF WORK DONE BY SANITARY POLICEMEN.

	1912	1913	1914	1915	1916	1917
Visits, Contagious Diseases	3108	1888	2099	2178	2791	3528
Visits on Complaint	1601	3213	2519	3761	3884	1192
Quarantines						
Diphtheria	460	3344	295	211	501	661
Scarlet Fever	417	1160	178	281	389	131
Membranous Croup	43	31	14	5	19	
Smallpox	1	22	84	40	2	200
Infantile Paralysis				36	18	28
Measles					10	272
Whooping Cough					66	21
Fumigation						
Contagious Disease Houses	902	535	422	468	749	733
Infectious Houses	20	45	46	51	235	224
Room & Clothing	148	61	132	64	91	42
Restaurants & Schools	2	1		14		2
Patients Removed to Cont. Hospital	145	114	75	191	189	63
Detention Hospital		6	65	14	3	77
Hospital to House	1		1	20	30	21
Funerals Attended	35	13	9		2	3
Groc. Milk & Coal ord. for Quar. Fam.	179	16	44	38		
Nuisance Abatement						
Verbal Notices served	620	1802	1124	1898		1110
Written Notices Served	585	640	425	381		2028
Character of Nuisances abated						
Chickens Cooped	171	353	244	266		101
Manure Removed	104	194	249	397	25	145
Vaults Built	67	60	46	49		
Vaults Cleaned	90	150	114	158	41	241
Sewer Connections	47	99	83	78	33	
Sewers Ordered Open	65	107	73	67	15	104
Yards Cleaned	290	749	441	702	63	572
Cellars Cleaned	35	125	773	34	6	83
Garbage	122	450	522	779	78	487
Cesspools abated	1					10
Weeds Cut	27					
Cisterns						3
Barns						
Miscellaneous	24					
Nuisances abated	867	2611	1793	2666	337	
Arrests Made	9	5	6	14		5
Attended courts	13	9	8	23		
Convictions Secured	9	5	5	11		5
Flue Connections made						

TERMINAL FUMIGATION.

In 1917 terminal fumigation was performed in 801 places as follows:

Contagious Disease houses	733
Infectious Houses	24
Rooms and clothing	42
Restaurants and schools	2
Total	801

A number of cities have discontinued routine fumigation of houses. Providence, Rhode Island discontinued as early as 1908. Rochester has had no routine fumigation for a number of years. New York City and Milwaukee discontinued in 1915. The reason for discontinuance is that terminal fumigation is of no particular value and it is therefore a waste of money. Furthermore, it creates a sense of false security and becomes thereby a real danger. Scrupulous cleanliness, fresh air and sunshine are considered better disinfectants than any of the preparations that have been used for this purpo se.

In Manhattan where fumigation was discontinued, there were 193 later cases among 3451 original cases of Diphtheria or 5.5%. In Brooklyn where fumigation was perfommed there were 138 later cases among 2907 original cases of Diphtheria or 4.7%. After reducing these figures to those cases which might have been effected before fumigation, it was found that there were half again as many later cases in Brooklyn where fumigation was done as in Manhattan where it was not done.

Doctor Gardner Swartz, secretary of the Rhode Island State Board of Health says as regards fumigatioh, quoted in Columbus Survey report:

"What may we expecy by fumigation? Our bacteriological tests inform us that the fumes of sulphur are not destructive to bacterial life. Formaldehyde gas may be effective, but must be applied under certain prescribed conditions. A room must be sealed tightly; the gas in

the room must have a certain pressure; a particular temperature must be maintained and a degree of humidity. I have yet failed to know a Health Officer who was equipped with thermometer, hydrometer, and pressure gages. Since none of these measures are effective why go thru these measures and produce a fake sense of security when we know all the time that the infectious material is maintained longer in the throat than in the air outside?"

The City of Cincinnati endeavored to discontinue fumigation, but a ruling of the City Solicitor was to the effect that fumigation by Boards of Health is mandatory and not optional.

COOPERATION BETWEEN THE POLICE AND HEALTH DEPARTMENT.

Violations of the sanitary regulations should be as much the concern of the policemen as is the detection of crime. The serving of notices to abate nuisances, placarding of quarantined houses, the reporting of dead animals, the inspection of alleys and nuisances could be performed by the police force without interfering with the efficiency of their police work. In Akron there are 90 policemen on patrol and only 3 sanitary policemen, and it is therefore evident that a more thoro inspection of the city would result if policemen were trained to perform this service.

Cooperation between the Police and the Health Department in the matter of sanitary inspection is now a reality in a few cities. In New York City 50 patrolmen are detailed to the Health Department to enforce orders and serve notices, maintain quarantine regulations and abate nuisances. In the Chicago Health Department inspectors are stationed at the precinct police stations and complaints are received at these stations and investigations made either by the Health De-

partment inspectors or the policeman on the beat.

In Boston, 10 police officers are assigned to the Health Department and receive their instructions from this department. In San Francisco, two policemen are assigned to the Health Department and regular patrolmen make arrests for nuisances and unsanitary conditions on their beats. Milwaukee reports that the police assist the Tuberculosis division by reporting removals of patients. Portland, Ore., reports that every police officer having a regular beat is ex-officio a sanitary inspector and renders valuable service to the Health Department.

Not only policemen, but firemen, building and plumbing inspectors, nurses, etc., could report unsanitary conditions to the Health Department. A standard form containing a list of the things to be reported on might be printed and distributed among all the inspectional forces of the city and their cooperation obtained.

Should not the investigation of quarantine patients for the purpose of determining the kind and quantity of relief required be done by the trained social workers of the Charity Association rather than by a sanitary policeman?

This does not mean, however, that the City does not need sanitary inspectors. It simply means that the kind of work which has been done in the past under the title of sanitation might be done by other agencies than the Health Department. If the city is to exercise adequate sanitary control over even this phase of the work, however, a larger force is needed. Columbus employs 10 sanitary policemen and Dayton and Toledo each employ 4. There are pressing problems for the division of Sanitation which will require all the trained sanitary inspectors the city can afford. A complete house-to-house sanitary survey of the city

is now being made. This will include housing conditions, water supplies, sewage disposal, milk supply, live stock, etc. The problem of industrial hygiene, especially in the smaller shops and factories needs attention.

DAIRY AND FOOD CONTROL.

The problem of dairy and food control is practically untouched in Akron. The city has employed one inspector from 1911 to the present time. The details of this work performed are given in table 5.

TABLE NO. V.

SUMMARY OF THE WORK PERFORMED BY THE DAIRY AND FOOD INSPECTOR.

	1912				1913				1914				1915				1916				1917.		
	NO OF INSP	CHANGE ORD	REINSPEC	FINAL ORD	NO. OF INSP	CHANGE ORD	REINSPEC	FINAL ORD	NO OF INSP	CHANGE ORD	REINSPEC	FINAL ORD	NO OF INSP	CHANGE ORD	REINSPEC	FINAL ORD	NO OF INSP	CHANGE ORD	REINSPEC	FINAL ORD	NO OF INSP	CHANGE ORD	REINSPEC
Dairies	21	24		12	2				3				12	3	2	6				3	16	24	13
Dairy Cows	175				232	5			38														
Retail Milk Plant	35	9	5	3					1				11	2			9	10	4		80	121	39
Milk Wagons	85																						
Bakeries	35	11	3		57	99	18		61	89	21	1	127	185	47	4	95	117	38		61	113	37
Meat Markets	230	3			337	132	62		277	80	34		326	70	35		185	62	59	1	146	115	66
Fish Markets	78	6			91				95	32	4	2	89	34	16		57		8		57	49	33
Vegetable Stalls	113				292	97			180	20			254	11	10		124		14		117		37
Fruit Stands	43	8																					
Slaughter Houses	4	2			4																		
Cheese factories	1	5	1	1					5	10	10	1											
Grocery Stores	12				46	69			37	28	7		94	30	14	1	86	52	42		48	42	36
Restaurants	3	3			74	165	33		90	131	36	3	112	180	50		77	200	65	2	70	159	62
Confectioners	3				18	28	7		68	13	12		89	26	25		88	44	55		70	54	15
Ice Cream Plant	8				5	5	2		32	36		4	24	5	8		33	84	38		31	66	14
Poultry Dealers	20	3			38				7				25	18	21								
Wagons									166	50	18	5	281	44			190				221	20	
Total	866	74	9	6	1196	600	122		1060	489	162	16	1444	608	228	11	944	569	323	6	917	763	352

SUMMARY OF WORK PERFORMED BY THE DAIRY AND FOOD INSPECTOR.

	1912	1913	1914	1915	1916	1917.
Samples taken for analysis	19	127	74	77	25	218
Food Condemned						
Pork (lbs)	330	150	387	6336		
Beef	522	475	8		1050	
Fish and oysters	8	52	50	136	25 Gal.	
Mutton	28	12				
Mushmelons (crates)	4		1			
Chickens, Turkeys, ducks	110	407	225	[illegible]	52	2
Vegetables (Bu.						1264
Fruit (Bu.						50
Fruit (pounds)						40000
Cheese (lbs)						12
Complaints investigated	113	168	323	270	228	270
Notices Served	124	424	452	407	435	170
Other orders issued		88	332	173	347	236
Nuisances abated				133	227	137
Dogs						
Impounded	989	650	614	776	793	283
Killed	777	585	575	731	736	263
Redeemed	139	61	39	39	27	12
Dead Animals removed	330	314	427	653	659	507
Calls Received				436	535	359
Ambulance Calls	[illegible]	120	149	34	227	
Arrests made	27	24	33	26	38	16
Convictions	18	21	24	24	37	16
Settled out of court	10	18	12	2		
Permits issued						
Milk	501	526	690	797	739	673
Meat	162	117	139	491	514	580
Fish	7		5	20	12	5
Ice Cream	10	15	14	39	21	25
Fruit and Vegetable	9		96	50		
Baked Goods	48	46	40	159	108	111
Spring Water		3	5	5		
Other					11	59
Persons bitten by dogs	96	94	99	161	97	90
Dogs quarantined				122	81	62

It is, of course, absurd to expect one man to inspect all the restaurants, bakeries, butcher shops and other food establishments in a city of 150,000 people. Columbus employs 14 food inspectors and Dayton 5. At least 5 men are needed at once in Akron and perhaps 10 men would be none too many.

MEAT INSPECTION.

The records of the Department do not show the number of slaughter houses in Akron and no inspections are reported. In 1917 there were 580 permits for meat establishments issued. There are about 30 slaughter houses in Dayton and 59 in Columbus. No doubt Akron has a sufficiently large number to employ a full time veterinarian to devote all his time to the inspection of slaughter houses and the 580 meat establishments and thus protect our citizens from consuming diseased and unclean meats. Meat inspectors should be veterinarians because the success of the work depends largely upon the technical ability of the inspector.

MILK INSPECTION.

The number of dairies supplying milk to Akron is also not known. The number of inspections reported in 1917 was 16 and the number of milk permits issued was 673. Dayton receives its milk from 750 dairies and Columbus from 1296 dairies. No doubt Akron is supplied by several hundred dairies. To exercise adequate supervision over these several hundred dairies outside the city, and all the retail wagons, restaurants, grocerers, bottling plants and receiving stations handling milk within the city is a big problem. No one factor is of greater importance in reducing the infant mortality rate than is the milk supply. Last summer the milk situation was very unsatisfactory and no doubt many babies died because of the impossibility of securing clean, wholesome

milk. The wonderful accomplishments in the saving of lives of thousands of babies in American cities thru supplying proper milk is known to all who have knowledge of municipal affairs.

FOOD ESTABLISHMENTS.

The routine inspection of public eating houses, bakeries, candy factories, etc., has been done in a cursory manner. Standard score cards have not been used in the work and the results of the inspection were not published so that the inspection work has been of little value to the individual places inspected of to the public.

The following plan has been worked out in other cities for covering a large amount of inspection work with a small force. First a preliminary survey is made of the entire field, every establishment being inspected and scored. On the basis of this scoring, the establishments are divided into groups. The first group consisting of those having the highest score will require little or no inspection. The second group consisting of those which score lower than the first group will require some attention but not frequent routine inspection. The third group, consisting of those having a very low score would require almost constant attention. Those establishments found to be in the first group can be given a grade A certificate which the proprietor is required to post in a conspicuous place. Those in the second group would receive a grade B certificate and those in the third group, a grade C certificate. The proprietors of places receiving grade B or C certificates will bend their energies to secure a grade A certificate and such certificates also enable the public to determine where conditions are best and to patronize those places.

CONTROL OVER FOOD HANDLERS.

On account of the large number of eating places and the large

number of our population who must eat at public eating places, it is especially necessary that some control be exercised over all employees engaged in the handling, preparation and serving of foods. A physical examination of all employees could be required by the Health Department before a permit is issued and periodic subsequent examinations might be required.

LABORATORY SERVICE.

The Laboratory service of the Health Department was greatly expanded during the latter part of 1916 and during 1917 over 18,000 examinations were made. Full details of the activities of this division will be found in the following table.

Table VI.

SUMMARY OF WORK PERFORMED BY CITY CHEMIST.

Bacteriological Examinations.	1913	1914	1915	1916	1917.
Diphtheria	424	471	586	3013	17,655
Tuberculosis	5	14	13	151	.491
Typhoid Fever	6		17	12	98
Gonorrhea				8	46
Miscellaneous	15	20	33	1	212
Total	450	505	649	3185	18,502
Chemical Examinations					
Wine	10		34	35	
Milk	116	35	33	26	38
Butter	2	1	3	4	
Oleomargarine		3			
Meat	15				
Water	110	152	198	823	1
Cereal	7				
Miscellaneous	25	47	35	56	101
Total	285	238	303	944	140
GRAND TOTAL	735	743	952	4129	18642

A competent and experienced Bacteriologist and Chemist is in charge of the work. In April 1917 a notice was sent to all physicians in the city to the effect that the laboratory was then equipped and ready to do the following examinations.

Direct smears and nose and throat cultures for Diphtheria baccili

Sputum for Tubercular baccili

Widal test for Typhoid Fever

Pus smears for Neisserian infections.

Spinal fluid for Meningococci and

Blood smears for Malaria parasites.

Every enlargement of the scope and activities of the other divisions of the Health Department will automatically bring about more work for the Laboratory. Adequate milk control will require a large amount of routine examination of milk samples to test the cleanliness of the milk. Adequate control over the water supply will necessitate examinations of samples of water from city mains and private wells. Examination of private well water in Columbus showed that out of 244 samples taken in 1915, only 105 were usable. The establishment of a venereal clinic will necessitate the use of the Wassermann re-action which is used to make possible the accurate diagnosis of Syphilis.

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CHILD WELFARE.

This is an entirely new activity in the City of Akron. This division began its work in October 1916 and completed its first full year's work in 1917. At the close of the year the division consisted of the Director and 20 nurses. Representatives of the National organization for Public Health Nursing visited Akron in May and July and assisted in the centralization and coordination of the Public Health Nursing work in Akron.

The activities of the division comprise the following: medical supervision over school children; operation of infant welfare clinics; municipal tuberculosis dispensary; general home nursing and educational work.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

During the year 76,728 clinic inspections were made by the school nurses. 96% of these inspections reveal conditions needing either medical or nursing care. 1448 cases were referred to family physicians, 1241 to school physicians; 872 for dental care and 428 to occulists; 135 were referred for hospital care and 536 suspicious cases were referred to the city Epidemiologist. 21872 or 28% of the inspections were minor dressing cases, 4825 pupils were excluded by school nurses from school for the following reasons: 971 for high temperature; 729 for pediculosis; 458 for suspected contagious eye disease; 428 for suspected measles; 471 for suspected Whooping Cough; 414 for suppected Chicken Pox; 320 for suspected sore throat; 13 for suspected Scarlet Fever; 30 for Scarlet Fever contact cases; 38 for Scabies; 88 for Impetigo and 755 miscellaneous causes.

During the last 4 months 12345 physical examinations were made by school physicians. This showed that 67% of the children examined had some physical defect. 445 mentally retarded children were examined and given the Binet test. 48% were diagnosised as "definitely feeble minded"; 17% probably feeble minded and 8% were found to be institutional cases. 7784 corrections of physical defects have been reported. 4887 were oral corrections; 730 ocular corrections; 601 tonsils removed; 365 adenoids removed, 1200 miscellaneous.

Tooth brush drills and health talks have been given in the schools and "Little Mothers Leagues" organized among the younger girls.

INFANT WELFARE CLINICS.

Three infant welfare stations were opened during the year at Bowen, Lane and Allyn schools. 357 babies under two years of age have been under the supervision of the baby clinics and but 3 deaths have occurred among the number. 65 prenatal cases have been given instructive care.

TUBERCULOSIS CLINIC.

The division took over the work of the George T. Perkins Visiting Nurses Association and the municipal tuberculosis dispensary was opened in September. Two physicians and two nurses are in charge. 551 patients have been cared for by the dispensary staff. An average of about 300 families are under the care and supervision of the dispensary staff each month. An average of 11 clinics are held monthly.

GENERAL NURSING.

Bedside nursing service has been given to indigent cases. Occasionally services are requested by patients able to pay, in which case a fee of 50¢ per visit is charged. The total revenues from this source amounted to $33.00.

The total number of calls made by all the nurses of all the divisions was 30,000. The total cost of the division was about $27,000.

The infant death rate has decreased from 90 per thousand births in 1916 to 84 per thousand in 1917. This is a low death rate for an industrial Eastern city and no doubt the work of this division has contributed materially toward this reduction. Ahother notable achievement of the visiting nurses is the more complete reporting of communicable diseases.

REPORT OF NURSES WORK
SCHOOD MEDICAL INSPECTION SERVICE
JANUARY TO DECEMBER 1917.

No. of Nurses on Duty	#
No. Clinical Inspections	76,728
No. not affected	3,046
No. re-admitted	5,184
No. new pupils inspected	598
No. School Room Inspections	2,451
No. Cultures taken	6,186
No. Physical Asst.	2,041
No. Health talks or drills	903
EXCLUSIONS.	
Diphtheria	27
Diphtheria Carriers	77
Scarlet Fever	13
Scarlet Fever Contacts	30
Measles	428
Chickenpox	314
Whooping Cough	35
Mumps	317
Pulmonary Tuberculosis	5
Contagious Eye Diseases	458
Ringworm	55
Scabies	98
Impetigo	88
Pediculosis	729
Temperature	971
Sore Throat	320
Miscellaneous	660
OTHER DISEASES AND DEFECTS.	
Adnoids	44
Tonsils	626
Hyp. Ger. Glands	436
Teeth	2,334
Eye	2,831
Ear	1,218
Nose	119
Orthopedic	0
Cardiac	5
Nervous	10
Skin	4,544
Goiter	48
Miscellaneous	22,538
Dressings	21,872
Mental	7
CORRECTIONS	
Adanoids removed	364
Tonsils Removed	601
Dental corrections	4,887
Glasses secured	730
Treatment secured	1,204

Number of nurses varies from 10 to 15.

REPORT OF NURSES WORK, ETC. (Continued).

Susp. Cont. Ref. to Health Department	536
Ref. to Private M. D.	1,448
Ref. to School M. D.	1,241
Ref. to Dentist	872
Ref. to Oculist	428
Ref. to Hospital	135
Ref. to V. N. A.	17
Ref. to Charity	14
Ref. to O. W. R.	39
Ref. to Dispensary	9
Conf. with School M. D.	309
VISITS	
No. Schools visited	36
To Homes	10,747
To Health Department	2,281
Miscellaneous	2,098
No. Baths	523

REPORT OF INFANT WELFARE STATIONS.

No. of Stations	#
No. of Nurses	o
No. of Clinics	152
No. of visits	3,049
No. new babies registered	357
Total No. under supervision, (new and old)	1,634
Prenatal cases under supervision	65
Little Mothers Clubs	29
Deaths of infants under 2 years	3
Children Vaccinated	51
Diets	
Breast Fed	806
Bottle Fed	219
Mixed Feedings	197
Mixed Diets	205
Solids	30
Feed received for nursing care	$3.00

\# After June 1st 3 stations
o Number of nurses varies from 1 to 12.

REPORT OF NURSING VISITS, CONTAGIOUS DIVISION.

No. of Nurses in Division. (varies from 1 to 5.)	
No. of Visits in Division	4,087

TOTAL SUMMARY OF NURSES VISITS.

Total number of Nurses, all Divisions. (varies from 13 to 21)	
Total no. calls to homes, all divisions	30,442

REPORT OF BEDSIDE VISITING NURSES WORK FOR THREE MONTHS. 1917.

No. of cases under supervision	274
No. of new cases received	108
Old cases re-admitted	38
Total	420

REPORT OF CLINICAL WORK OF THE MUNICIPAL TUBERCULOSIS DISPENSARY FOR FOUR MONTHS, 1917.

No. referred by Perkins V. N. A. Sept. 1, 1917	209
No. referred by Board of Health Sept. 1, 1917	110
Total under observation Sept. 1, 1917	319
No. new cases examined	152
No. new Home Cases received	72
No. old cases re-admitted	8
Total No. cases under supervision Sept to Dec. 1917	551
No. Clinics held	43
No. physicians assigned to Tuberculosis Dispensary	2
No. Nurses assigned to Tuberculosis Dispensary -(1 first Mo)	2

REPORT OF MENTALLY DEFICIENT AND RETARDED CHILDREN, ACCORDING TO BINET TEST.

Total Schools	28
Total No. of Pupils	18,367
Total No. examined	445
Total No. Retardation Cards	1,262
Total No. definitely F. M.	215
Total No. Probably F. M.	77
Total No. Institutional Cases	35

VITAL STATISTICS.

The last census of 1910 gave Akron a population of 69,067. The Burch Directory population figures for the same year was 78,918. By using the Directory figure and making allowance for the fact that they are uniformily greater than the census figure, the school census enrollment and Chamber of Commerce estimated population figure an estimated population figure has been arrived at which it is thought is near the true figure. The following table gives the estimated population, total deaths and the death rate per thousand.

	Est. Population	Deaths	Death Rate.
1912	85,000	1190	14.0
1913	92,000	1266	13.7
1914	99,000	1201	12,1
1915	100,000	1286	12.9
1916	125,000	1610	12.9
1917	150,000	2025	13.5

In 1916 there were 300 more deaths than in 1915 and in 1917 there were 400 more deaths than in 1916. This increase is partly due to the shifting character of our population which increases the danger of spreading disease and partly to over-crowding and poor living conditions. The following table gives the estimated population by wards, based on the total registration of voters in 1916; the total number of deaths in each ward and the death rate by wards. The total registration of the city in 1916 was 24,500. On the basis of a total population of 125,000 this would give a ratio of 5.1 persons per registered voter. The population by wards has been obtained by multiplying the registered vote in each ward by 5.

	Registered Voters	Population	Deaths	Rate
Ward 1	2,950	15,000	154	10.3
Ward 2	2,284	11,600	329	28.4
Ward 3	2,981	15,200	122	8.0
Ward 4	2,537	12,900	315	24.4
Ward 5	3,124	15,900	256	16.1
Ward 6	4,332	22,100	180	8.1
Ward 7	4,206	21.400	145	7.0
Ward 8	2.128	10,900	108	10.0
	24,542	125,000		

Wards 2 and 4 which contain the hospitals have the highest death rates as deaths in the hospitals are charged against these wards. This reveals one weakness in the present method of recording vital statistics which should be corrected by segregating the deaths in hospitals from the deaths in these two wards. Ward 5 has the next highest rate, 16.1 per thousand. Ward 7 is lowest, 7.0 per thousand.

More deaths occur during the first year of life than in any succeeding 10 year period. 337 babies under one year of age died in 1916 and 397 in 1917. The deaths for each 10 year period are given in the following table.

	1916	1917
Under 1 year	337	397
1 - 5 yr.	160	236
5 - 10 "	46	75
10 - 20 "	48	103
20 - 30 "	156	253
30- 40 "	162	231
40 - 50 "	175	176
50 - 60 "	165	176
60 - 70 "	142	135
70 - 80 "	144	150
80 - 90 "	64	70
90 -100 "	10	13
Unknown	1	10
Total	1,610	2,025

Akron's infant mortality rate was 83.9 in 1915, 90 in 1916 and 84.8 in 1917 per thousand births. This means that out of every thousand born, 84 died before they reached one year of age. The infant mortality rate is determined by dividing the total number of deaths under one year of age by the total number of thousands of births, exclusive of still births. This is lower than many cities, but is higher than many others which have similar conditions to contend with. In general, Western cities have low rate; Souther cities have high rates largely due to the high mortality rate among negroes. The following table gives the infant mortality rates for various cities for the year 1915.

Omaha	47.1
Seattle	53.1
Portland, Ore.	57.7
Los Angeles	67.4
San Francisco	70.8
Minneapolis	71.0
St. Paul	77.9
Cincinnati	78.9
St. Louis	82.1
Jacksonville	83.4
Newark, NJ.	83.6
AKRON	83.9
New Haven	84.8
Kansas City, Mo.	86.7
Milwaukee	94.4
Memphis	94.5
New York	98.2
Detroit	104.6
Springfield, Ill.	105.0
Pittsburgh	107.7
Cleveland	110.7
Providence	114.4

It was not possible to determine the infant mortality rate for each ward because the deaths under one year are not reported by wards in the annual reports of the Department. Such information is, of course, necessary to enable the Department to take extra precautions in those wards which show an abnormally high rate. The absence of this information leads to the conclusion that little use has been made of vital

statistics as a basis of control.

245 deaths are recorded in 1916 due to prematurity and still born, and 286 in 1917. It is safe to say that many of these lives might have been saved if mothers had known how to take proper care of themselves. Splendid work is now being done along this line by the nurses of the Health Department. Three infant welfare clinics were operated in 1917 in three different schools. But 3 deaths occurred among the 357 babies under two years of age which were under the supervision of the baby clinics. 65 prenatal cases were also given instruction and care by the public health nurses. The work of the diary and food control division bears in vital relation to the problem of saving the lives of babies. Milk is the natural food of babies and more thoro and effective inspection and control over the supply of Akron is urgently needed. Up to the present time we have had no real inspection of the milksupply. Only a few dairies are scored annually and these are not made in a thoro scientific manner. A pure milk supply for Akron would considerably diminish the number of infant deaths.

There werw 3735 births in 1916 and 4728 in 1917. Wards 4, 5, and 2 have the highest birth rates, or 51‰, 49‰ and 42‰ respectively. Ward 3 has the lowest, 13 per thousand population. Complete detailed information is given in the following tables.

TABLE SHOWING DEATHS CLASSIFIED UNDER VARIOUS CLASSIFICATIONS.

YEAR	TOT. DEATHS	RESIDENT	NON-RESIDENT	SEX		STILLBORN & PREMATURE	AGE				COLOR		NATIVITY							SOCIAL RELATION					
				MALE	FEMALE		UNDER 1 YR	1 to 2 YRS	2 to 5 YRS	ALL OTHERS	WHITE	COLORED	OHIO	OTHER STATES	GERMANY	IRELAND	ENG.& WALES	HUNGARY	AUSTRIA	ALL OTHERS	SINGLE	MARRIED	WIDOWS	WIDOWERS	DIVORCED	UNKNOWN.
1912	1352	1190	162	662	528	151	205	45	52	737	1185	5	761	194	67	29	37	46	14	42	326	370	117	60		17
1913	1452	1266	186	720	546	124	285	55	43	759	1260	6	790	197	82	24	38	39	24	72	670	418	87	76		15
1914	1425	1201	224	649	552	134	252	46	48	721	1193	8	767	190	55	15	36	40	20	78	632	398	96	68		7
1915	1600	1286	314	718	568	131	255	42	31	827	1272	14	786	215	64	25	33	52	31	80	646	453	117	65		5
1916	1884	1610	274	880	730	245	337	(160)		1113	1579	31	882	320	87	24	61	(105)		131	760	581	139	86	22	22
1917	2344	2025	319	1239	786	286	397	(236)		1392	1863	42	(1548)		(409				)	68	1050	718	122	72	28	35

LOCATION BY WARDS.

Year	1	2	3	4	5	6	7	8	Not Given
1912	94	306	99	108	184	152	174	73	
1913	113	311	89	126	211	166	161	89	
1914	117	308	97	106	205	138	150	80	
1915	114	283	81	232	199	157	155	65	
1916	154	329	122	315	256	180	146	108	1
1917	203	378	123	329	289	365	243	95	

TABLE OF BIRTHS.

YEAR	MALE	FEMALE	WHITE	COLORED	TOTAL	1	2	3	4	5	6	7	8	OUTSIDE CITY
1912	931	906	1824	13	1837	163	341	119	264	346	155	290	138	116
1913	1238	1194	2414	10	2424	237	329	152	317	555	249	398	180	203
1914	1459	1408	2851	16	2867	280	418	176	348	623	358	449	215	293
1915	1564	1474	3019	19	3038	266	371	152	545	659	383	471	186	376
1916	1902	1833			3735	396	463	204	633	763	584	476	216	274
1917	2434	2294			4728	460	460	273	771	861	885	631	297	272

CLASSIFICATION OF DEATHS.

	1912	1913	1914	1915	1916	1917
GENERAL DISEASES						
Diphtheria	27	18	7	10	23	73
Typhoid Fever	18	14	23	24	20	32
Septicemia	13	29	21	21	13	10
Pulmonary Tuberculosis	65	63	59	70	69	102
Membranous Croup	9	7	1	1	2	
Cancer	51	52	64	48	71	60
Appendicitis	5	4	4	3	8	16
Scarlet Fever	18	7	7	5	4	3
Peritonitis	19	20	27	21	15	13
Diabetes	6	12	12	18	16	12
Whooping Cough	4	9	2	2	28	14
Measles	1		2	1	43	22
Infantile Paralysis	1				4	19
All others	79	67	62	100	135	153
Total	316	302	291	324	451	529
DISEASES OF NERVOUS SYSTEM						
Paralysis	10	6	6	4	6	4
Apoplexy	38	15	25	15	12	16
Convulsions	18	13	5	13		
Meningitis	22	21	32	21	14	100
Cerebrial Hemorrhage		58	32	32	19	47
All others	19	14	5	19	33	34
Total	107	127	105	104	84	201
DISEASES OF CIRCULATORY SYSTEM						
Heart Disease	60	59	51	67	43	60
Arterio Sclerosis	35	29	29	31	91	63
Myocarditis	11	14	15	14	12	22
Chronic Myocarditis	9	7	4	7		10
All others	18	24	17	32	64	84
Total	133	133	116	151	210	239
DISEASES OF RESPIRATORY SYSTEM						
Broncho Pneumonia	38	42	44	59	90	104
Lobax	67	80	57	79	113	151
A thother	14	9	11	16	8	20
Bronchitis	3	7	10	1	11	7
All others Bronchitis	3	11	3	6		7
All others	21	12	6	5	33	25
Total	146	161	131	166	255	314

	1912	1913	1914	1915	1916	1917
DISEASES OF DIGESTIVE SYSTEM						
Acute Indigestion	17	16	12	12	3	8
Gastro Enteritis	23	43	33	18	59	85
Cholera Infantum	31	17	23	15	30	34
Entero Colitis	16	21	13	11	9	13
All others	34	56	55	32	90	108
Total	121	153	136	88	191	248
DISEASES OF GENITO URINARY SYSTEM						
Brights Disease	43	16	21	12	8	25
Uraemic Poisoning	13	11	1	4	1	2
Nephritis - All kinds		21	18	31	48	42
All others	14	8	11	9	28	23
Total	70	56	51	56	85	92
EXTERNAL VIOLENCE						
Fractured Skull	36	30	28	31	47	82
Suicide	12	20	17	19	8	13
All others	41	61	68	89	122	124
Total	89	111	113	139	177	219
DEATHS FROM ALL OTHER CAUSES.						
Infantile	33	84	99	113	58	61
Puerperal	10	8	19	11	26	46
Old Age	9	7	5	3	23	17
Ill Defined	5		1		1	22
Still Born & Premature births	151	124	134	131	216	282
Malformation					32	29
Skin Diseases					11	6
Disease of Bones					5	2
Unknown					1	
Total	208	223	258	258	373	465

PROGRAM OF THE HEALTH DEPARTMENT.

The proposed plan for the organization of the Health Department as shown on the following chart provides for 6 divisions, each division to be in charge of a trained and experienced worker reporting directly to the health officer.

The following divisions have been established; Division of Epidemiology; Division of Public Health Nursing; Division of Laboratory; Division of Dairy and Food Control; Division of Sanitation; Division of Vital Statatics.

DIVISION OF EPIDEMIOLOGY.

The work of this division will consist of the investigation of every outbreak of communicable disease; maintenance of isolation, quarantine and removal of such cases as cannot be cared for in homes tothe contagious disease hospital. The best methods of disinfection will be devised and terminal disinfection supervised. The Director will be assisted by 4 full time physicians and nurses assigned to this work. The Division will have charge of the medical work at the infant welfare clinics and the school clinics. Cooperation will exist between this Division and the Division of Public Health Nursing in the instruction fo school children in hygiene and sanitation. It wil also have control of the operation of the contagious disease hospital.

DIVISION OF PUBLIC H EALTH NURSING.

This Division will have charge of the medical school inspection rendered by nurses and it is designed to provide sufficient nurses to insure that each school is visited daily. The nurses are to follow the sick children to their homeswhen necessary and report cases to the

Epidemiologist which need services of physicians which they may be unable to supply. Instruction is given in hygiene and sanitation to the school children, and organizations are formed for the promotion of public health education; such as Little Mothers Leagues and Mothers Leagues. Nurses are assigned to contagious disease work, visiting homes to supervise the maintenance of quarantine and give instruction. Nurses are also assigned to work in the tuberculosis clinics, school clinics and infant welfare clinics, and participate in educational effort. They report all cases of contagion to the Department.

DIVISION OF LABORATORY.

This Division will have supervision over all laboratory methods used in the determination of disease identity and for termination of quarantine and isolation. The examination of water, milk and food products will be performed at the Municipal University as it at present. It is planned to install facilities for performing the Wassermann test at an early date at which time it is hoped that an effort may be launched for the control of venereal diseases. The present impediment is the lack of hospital facilities for the care of such cases as must be isolated.

DIVISION OF DAIRY AND FOOD CONTROL.

This Division will have supervision over the sanitary condition of dairy farms; dairy herds, methods of handling milk, slaughter houses, and all places where meat is handled and sold; condemnation of all food products, unwholesome and unclean and dangerous for human consumption; the supervision of hotels, restaurants, markets and all places where food or drink is handled or sold. This division will first concentrate its efforts toward improving the methods of handling and distributing milk and in handling meat and meat products. The inspection of dairies will not be possible until funds are available to employ additional inspectors.

Effort will be made to secure as complete pasteurization of the city's milk as possible. It is designed to begin a routine inspection of restaurants, hotels and food stores after July 1st and the Department plans to employ 4 inspectors for this service and to inaugurate a system of scoring.

DIVISION OF SANITATION.

This division will have control over nuisance abatement and general sanitation of the city; sanitary supervision of public water supply; sewers and sewage disposal; public buildings; schools, dwellings, shops, factories, markets, stables, etc.; supervision of occupational safety and housing conditions. A house-to-house survey of the city is being made and a sanitary survey of the city schools and their environments are under way.

DIVISION OF VITAL STATISTICS.

This division will have charge of birth and death records and will make such compilations and records as are required by the state and federal departments. The Department will use the international classification of causes of death which requires that deaths be reported under 189 separate headings. The Director of this Division also acts as clerk to the Board of Health and makes and keeps records of all meetings of the Board. He draws all requisitions for supplies and all expenditures are made thru him. In addition, he has charge of the clerical force.

ANNUAL REPORT

of the

HEALTH DEPARTMENT

FOR THE YEAR 1918.

Report of Health Officer.

To the Board of Health,
Akron, Ohio.

Gentlemen:-

I am presenting herewith tabulated statements covering the activities of the various divisions of the Health Department for the year 1918. These tabulations can serve to convey to you the manner in which our efforts were distributed and will show to some extent the population groups that have been given the most intensive service and the conditions most vigorously attacked. There is no possible way in which a departmental report can show the results accomplished for the highest measure of success in public health work is always shown in the raising of standards of living and in the attitude of the public toward the department and its work.

The first three months of the past year were spent in the reorganization of the department and in the study of local conditions with a view of fitting our facilities to the most urgent needs. During this period there were many changes in personnel and in consequence much shifting of duty and responsibility. The school work was very much interrupted as it was extremely difficult to secure the services of physicians and nurses. The war demands had taken practically all the available members of these professions. It is still difficult to obtain this kind of assistance.

Our study of the local situation convinced us that the greatest possible contribution to the public could be made through efforts at infant and child conservation. We determined to concentrate on this work from the closing time of the schools. Four welfare stations were established in the city and the medical and nursing force concentrated on this work. The low death rate among the children served indicates the degree of success attained and emphasizes the urgent need of this work. We have especial gratification in the dependence upon our work that is manifested by the increased demand for general public health service among the people served at the welfare stations. Foreigners and other uninformed persons find in these centers of community service a convenient and reliable source of information and help in their domestic perplexities of all kinds. The nurses and physicians are instructed to give assistance wherever and whenever possible without regard to the nature of the problem presented and without reference to official responsibility. In this way we have now secured the confidence of many of our residents and have been able to direct them more successfully in the care of the family health and the sanitation of the homes. Our policy is to take advantage of every opportunity to render service knowing that by doing so we shall acquire the influence that is so necessary in securing reforms.

We have found that a serious stumbling block to progress is the common idea that the public health worker is a combination of policeman and alms giver. This idea is the natural survival of the time when the Health Officer controlled the charity sickness service and attempted to secure sanitation and disease control only through the enforcement of health regulations in the courts. It is difficult to implant the newer idea that public health work is above all an educational activity and

that health regulations are more useful in defining health requirements than in compelling their adoption and use. The only possible way that this obstacle can be removed is through refraining as much as possible from prosecutions and by giving cheerful competent service to rich and ppor alike. This is the established policy of the department. Its application during the past year has furnished ample demonstration of its practical value.

Inasmuch as the physicians of the department and the members of the nursing staff constitute our closest points of contact with the public, and the effect of their work determines largely the measure of our success, we have tried to exercise especial care in the selection of these persons. Among physicians we have two classes of men to draw from. The elderly failure in private practice who is seeking a market for his services without much consideration for the work done, and the well prepared young man who is really interested in public service and is willing to accept a position at the salary we can offer for the sake of the training to be secured. Operating as we do under civil service we must use every means of assuring ourselves of the usefulness of physicians employed. In the nursing field we must be satisfied to secure graduates of acceptable training schools and train them in the work. Trained public health nurses command higher salaries than we can give a beginner on our staff and there are so few of them that it would be impossible to secure a complete staff of trained workers. Many nurses enter the work and find in a few weeks that they do not like it. Others enter and soon demonstrate their unfitness. There is in addition, the usual number of resignations from other causes so that there is constantly a changing of personnel that cannot be avoided. We hope that with the return from military service of the great number of physicians and nurses that we may be able to stablize our force and develop

the work as it should be developed. The education of the physician and the nurse together with their experience in the medical and surgical care of individuals serves only as a preparation for the entirely different work of public service. These men and women must get their training in actual field work before they can become useful and as experienced workers are in great demand we must look forward to training practically every physician and nurse we employ. Our most insistent demand from the public is now and will be in the future for public health nursing service. This is the logical result of good service rendered.

The work of the Food and Dairy Division during the past year has been devoted almost entirely to dairy and slaughter house control and the rabies problem. An effort has been made to eliminate the small dealer in milk who is careless in handling methods and to divert his supply to one of the six Pasteurizing plants. At the end of the year we had 88.6% of the milk supply of the city passing through the process of Pasteurization. This furnished reasonable control over milk borne diseases. It should be made compulsory by law to pasteurize all milk sold in the city that showed a bacteria count in samples taken from the wagon of more than 100.000 bacteria per cc. Local slaughtering is almost negligible. More than ninety five percent of the meat in the local markets is slaughtered under government supervision. The most important field of effort is found in the markets and in the restaurants in the supervision of food handling and preparation. The program we have had for the past year to cover this need has not been provided for by appropriation and still remains to be inaugurated. The rabies situation in this city and county is serious. Nine hundred and ninety one persons were bitten during the past year. Control of the dog law rests in the hands of the Sheriff. The demand for service upon this Division is far greater than can be satisfied with the present employees.

The Sanitary Division has given a good public service during the past year. The work has been systematized and much survey work has been done that is necessary for the intelligent operation of the division. It is to be hoped that the State Council on Public Health will publish its code of regulations during the coming year in order that the present confusion in responsibility and function in matters of sanitation may be cleared up. This division must be further expanded to meet the public demand for service.

Our laboratory service as it is now manned and equipped is satisfactory to a high degree. There is a good relationship with the physicians and the general use of the service is extending.

The epidemiological service has been especially efficient. Dr. Miller has been unremitting in his efforts and has given the city most excellent service in spite of many changes in the staff and the difficulty experienced in obtaining qualified assistants. All the commoner infections have shown a low rate of incidence throughout the year. There has been an important advance made in diphtheria, scarlet fever and smallpox control. Such control as was achieved in the recent epidemic of influenza was due to the preparation for it that was made in advance, the cheerful and sincere response on the part of the people when called upon to restrict their liberties in the interest of the public good, and above all upon the untiring and whole hearted devotion to the work that was manifested by every member of the health department. The nurses went into stricken homes day and night without rest giving what comfort and help that could be provided for the sick. There was not one complaint nor was there one suggestion of fear or unwillingness on the part of any nurse. The Board of Health should be proud of having such splendid spirit among its workers. The venereal disease control has been especially successful. The patients have shown their appreciation in the most practical way by voluntarily contributing nearly eight hundred dollars to its support. We are cooperating closely with the

courts and the police and welfare departments and look forward confidently to the time when a detention home will be supplied in which juvenile and female delinquents can be kept for treatment.

The work of the past year leaves much to be desired that might have been accomplished under more favorable circumstances. We have at no time been able to give the needed service in the matter of medical school inspection, nor have we been able to give the intensive individual service that must be had in the open window rooms of the schools, physicians and nurses were not obtainable and that service was especially interrupted in the spring with the change from part time to whole time medical service and in the fall by the epidemic of influenza which came at the beginning of the school year and occupied the time of our nurses during four months. The tabulations following will state briefly something of the extent of service rendered. We hope that the coming year will bring freedom from disturbance and the opportunity to secure sufficient competent and interested help that is absolutely essential to success.

Respectfully submitted,

CHARLES T. NESBITT, M.D.
Health Officer.

DIVISION OF

PUBLIC HEALTH NURSING.

Dr. Chas. T. Nesbitt and
the Members of the Board of Health.

Herewith I am pleased to present the Second Annual Report of the Division of Public Health Nursing of the Akron Department of Health.

We feel the year has been one of successful accomplishments in generalized nursing service rather than in specialized effort - although we have recognized the importance of giving special emphasis to our efforts along certain specific lines. We began the year with a sense of the communities needs, and a "Vision " of accomplishments; we also realized the handicap of a depleted Nursing force, and a constantly changing personnel, caused by the demands of the Army. It has been impossible to secure trained Public Health Workers and in many instances our workers had reached the point of efficiency and real value to the Department, only to be taken into Army Service. Realizing fully the Nations and the Allied Countries need of skilled professional service we have given our workers dheerfully and solved our civilian problems as best we could.

Perhaps the most prominent incident in the early part of the year outside of routine work, was the changging in March from part time Physicians to full time District Physicians. While causing more or less confusionnat the time, the "full time" plan has proven the more satisfactory. In March, also, the Anti-Tuberculosis Committee of the Akron Red Cross Chapter assumed the responsibility of the Physician's salary at the Tuberculosis Clinic and Dr. Clyde Leeper was placed in charge of the Medical end of our Tuberculosis work at a salary of $900.00 per year for part time service. The Goodyear

Tire and Rubber Company by whom Dr. Lesper is employed as a Tuberculosis Specialist granting him certain concessions as to time for the Dispensary service. The Red Cross at this time was also furnishing us the services of two Nurses for the Tuberculosis work.

In April, through the medium of our School Medical Inspection Service, our attention was brought to the great number of anemic and poorly nourished children in the public schools and through the Physicians and Nurses a list of over 600 children were referred to the Department, as in need of Open Air School treatment. In addition to the children in need of fresh air treatment, 137 children were found who were suffering from after effects of Infantile Paralysis. This information coupled with inquiries coming into Central Office as to what Akron had to offer in the way of after care for Infantile Paralysis cases, aroused us to the necessity of making some provision for these little sufferers and the most feasible plan seemed to be, to send one of our Staff Nurses to Boston for a course in Massage and Muscle Training at the Boston Children's Hospital. The plan was presented to the Board of Health and looked upon with favor. Correspondence with the Children's Hospital brought forthethe information that they would take one of our Nurses at the beginning of their fall course.

In May Akron's fourth Municipal Child Welfare Clinic was opened at the East Akron Community House and with the closing of the Schools early in June, the efforts of the School Medical Inspection Staff were centered on the conservation of Childlife in Akron. The care and feeding of infants up to two years of age, and the supervision of the child from "two to six" are the special functions of the Infant Welfare Stations. Pre-natal instruction to pregnant women; after care of maternity cases and general bedside nursing service are all included in the list of the Station nurses duties.

In compliance with the request of the Children's Bureau, records of "weight and measure" of all children attending the Municipal Child Welfare Clinics were forwarded to Washington through the medium of the Local Woman's Committee of the Council of National Defense. While in no way deviating from the Local Municipal plan for the conservation of Childlife, encouragement and co-operation was given to the Woman&s Committee.

The results of our summer's work were gratifying and with the opening of schools, the need of leaving Nurses permanently in charge of the Child Welfare work was evidenced. With the urgent necessities of the School Medical Inspection Service before us, it was not possible to assign more than one Nurse to each Welfare Station with our present Staff, though fully realizing one Nurse could not adequately care for the work of any one Station.

The school work was started with an entirely new group of Field Nurses. So continuous were demands for Nurses for Army Service, the personnel of our Staff changed almost entirely within the year. The general routine of the school work was barely established when the epidemic of Spanish Influenza began. With the closing of the schools on October 11th under orders from the State Board of Health, the efforts of all Staff Nurses were centered on the care of Influenza and Pneumonia cases.

The opening of the Emergency Hospital in the Armory for Influenza cases on October 21st was one of the events of the year. Its period of existence was four weeks and during that time 105 children under 16, 157 men and 82 women, a total of 344 patients were cared for. 48 deaths occurred in the Hospital. Sixteen Nurses from the City Staff were detailed for the Emergency Hospital Service, under the supervision of the Director of the Division, who took over the duties of the Superintendent of the Emergency Hospital. Volunteer Nurses and Aids assisted the Department of Health Nurses in the care of the Hospital patients. Miss Elizabeth Yost, Supervising

Field Nurse, was given charge of the Central Office of the Nursing Division and supervision of the work of seven Field Nurses detailed for District bedside Nursing. At this time all clinical service was discontinued and the Nurses provided by the Anti-Tuberculosis Committee of the Red Cross were assigned to the General Visiting Nursing Service.

With the re-opening of the schools on November 18th the School Medical Inspection Service was gradually resumed, but with no attempt at general routine, so insistent were demands for Nursing service from Influenza and Penumonia victims. Routine service was not followed in any part of our Divisional work even through December, although a gradual re-adjustment was apparent with the decadence of Influenza cases. Recognition of the general nursing service rendered the community has been apparent in the Central Office of the Nursing Division by the increased demands for Public Health Nursing Service.

Statistical reports of the year's work are attached herewith from which we have made the following brief summaries and comparative results with 1917.

SCHOOL MEDICAL INSPECTION SERVICE

	1917	1918
Clinical Service to School Children	76728	68484
Exclusions for Contagious Disease	4518	1058
Exclusions Suspicious Contagion	107	2057
Cultures taken	6186	4065
Reported defective to parents	12215	14891
Minor ailments reported	22538	24078
Defects Corrected		
Adenoids	364	101
Tonsils	601	179
Dental	4887	2343
Treatments	1204	605
OPEN WINDOW ROOMS		
Referred for Open Window Rooms	175	650
Open Windown Room Accommodations	69	180

Open Window Rooms are for under nourished and defective children. Medical and Nursing supervision is supplied by the Department of Health. School equipment and food furnished by the Board of Education. Statistical report of Open Windown Rooms will be made at the end of the school year.

SPECIAL HEALTH EDUCATIONAL REPORTS.

	1917	1918
Little Mothers' Clubs	4	9
Health Talks and Drills	903	475
Baths	523	931

TUBERCULOSIS DISPENSARY

Tubercular persons served	551	1100
Tubercular families served	301	577
Tubercular persons passed through Clinic	No Record	1285
Tubercular Children served	121	350
Tubercular deaths during year	30	73
Hospitalized - Springfield Lake	28	67
County Infirmary	3	1
Other Institutions	0	25
No. Patients given free Milk	0	46

Through the courtesy of the Akron Pure Milk Company free milk was provided for needy Tuberculosis patients and infants.

Dr. Leeper's absence since September as a member of the Red Cross Tuberculosis Commission to Italy, has interferred to some extent with the routine of the Tuberculosis work. The Influenza Epidemic also seriously interrupted routine work.

CHILD WELFARE	1917	1918
Infants served (up to two years of age)	357	887
Families served	298	701
Infants examined thoroughly and feeding adjusted, preseribed and supervised in the home		
Milk supplied to Infants	0	186
No. pint milk tickets given out	0	3706
Death of Infants under care	3	5
From pneumonia	0	3
From feeding causes	3	2
No. families given free ice	0	3
Pre-School children under care from (two to six)	0	464

One death from this group during year. Dietry of children prescribed. Special emphasis given to care of teeth, eyes and nose and throat defects.

INFANTILE PARALYSIS CASES	1917	1918
No. referred for after care	•	137
Under treatment	•	12

This branch of the Divisional work is in its infancy. Miss Kinsey who spent September, October and November at Dr. Lovet's Clinic, Boston Children's Hospital, learning the principles of muscle training and massage for the after care of Infantile Paralysis cases, returned December 1st, 1918 and began the organization of the work here. Her work is already attracting attention. She is working in co-operation with Dr. Hoyt's clinic at the Children's Hospital and the work as outlined shows the need of Field Assistants for Miss Kinsey. A part of her work will be to train other Staff Nurses in muscle training.

THE NURSES OF THE DIVISION made 28,687 Visits, classified as follows:

School Nurses	16915	(To Schools, Homes & Misc.)
Visiting Nurses	7026	(To Homes & Misc.)
Visiting Tuberculosis Nurses	4746	(To Homes & Misc.)
Total	28687	

The average number of Field Nurses on duty per month throughout the year was fourteen. The end of the year, however, found us with a staff of eighteen Field Nurses, two Supervising Field Nurses and the Director of the Division on the regular City payroll. An Emergency Field Staff of four Nurses was necessary through the month of December, in addition to the regular staff. Four Nurses for Tuberculosis work are on the Red Cross payroll, and working under the supervision of the Department of Health. Through the period of the Influenza Epidemic, Nursing service has been given in Cuyahoga Falls, Tallmadge, Mogadore, Kenmore, Barberton and Richfield. This service was supplied by the Red Cross Nurses.

OUR NEEDS FOR THE COMING YEAR lie principally in the direction of an increased personnel. Each Open WindownRoom should have its own Nurse. For intensive work each school building should have a special Nurse, particularly in the large school buildings. However, five more Nurses for school service would relieve the situation to some extent. Thus far in the present school year the School Nurses have had practically no time for follow up corrective work in homes, as our records indicate, so heavy have been their duties elsewhere. Special educational efforts among school children have been neglected thus far in the school year, because of other duties. Each Infant Welfare Station is in need of at least one additional Nurse. Pre-natal and maternity nursing service should be increased and the Infantile Paralysis work needs more Nurses. For the City Tuberculosis Service at least four Nurses are needed.

A DENTAL CLINIC is one of our future needs, and such a clinic should be used to serve not only so called "charity cases", but the children coming from homes where the income provides only the bare necessities of life, leaving nothing for the payment of corrective dental work. Such provision should also be made for the correction of eye, ear, nose and throat defects. Many parents are not educated to realize the connection between certain physical defects and illness and disease, and for that reason refuse to pay for medical service, which they consider a luxury; the child suffers in consequence because we have not this public service to offer them.

SPECIAL MENTION of the co-operation of other local civic and welfare agencies should be made at this time. Sincere appreciation is expressed for the co-operation given this Division by the President and Members of the Board of Health, and the Health Officer and for the splendid support they have given the Nursing service. There has been the closest co-operation on

the part of other Divisional heads. The Staff Nurses have shown a wonderful devotion to their work and are deserving of special mention, because of the service they have rendered, particularly during the Influenza Epidemic and the subsequent weeks.

Respectfully submitted,

OLIVE E. BEASON, Director,

Division of Public Health Nursing.

REPORT OF NURSES WORK

SCHOOL MEDICAL INSPECTION SERVICE

	1917	1918
No. Clinical Inspections	76,728	68,484
No. not affected	3,046	3,092
No. re-admitted	5,184	4,519
No. new pupils inspected	598	299
No. School Room Inspections	2,451	1,067
No. Cultures taken	6,186	4,055
No. Physical Asst.	2,041	474
No. Health talks or drills	903	475
EXCLUSIONS		
Smallpox		19
Diphtheria	27	22
Diphtheria Carriers	77	3
Scarlet Fever	13	17
Scarlet Fever Contacts	30	23
Measles	428	58
Chickenpox	314	109
Whooping Cough	35	60
Mumps	317	153
Pulmonary Tuberculosis	5	3
Contagious Eye Diseases	458	268
Ringworm	55	3
Scabies	98	76
Impetigo	88	12
Pediculosis	729	232
Temperature	971	555
Sore Throat	320	342
Miscellaneous	660	1160
OTHER DISEASES AND DEFECTS.		
Adnoids	44	4
Tonsils	626	86
Hyp. Ger. Glands	436	391
Teeth	2,334	2,859
Eye	2,831	2,566
Ear	1,218	1,110
Nose	119	58
Orthopedic	0	4
Cardiac	5	0
Nervous	10	14
Skin	4,544	7,791
Goiter	48	28
Miscellaneous	22,538	24,078
Dressings	21,872	18,470
Mental	7	0
CORRECTIONS		
Adenoids removed	364	101
Tonsils Removed	601	179
Dental Corrections	4,887	2,343
Glasses secured	730	262

REPORT OF NURSES WORK, ETC. - - (Continued.)

	1917	1918
Treatment secured	1,204	605
Susp. Cont. Ref. to Health Dept.	536	250
Ref. to Private M.D.	1,448	1,657
Ref. to School M.D.	1,241	709
Ref. to Dentist	872	1,158
Ref. to Oculist	428	90
Ref. to Hospital	135	41
Ref. to V. N. A.	17	0
Ref. to Charity	14	3
Ref. to O.W.R.	30	31
Ref. to Dispensary	9	63
Conf. with School M.D.	309	171
Ref. to City M.D.		45
VISITS		
No. visits to Schools		4,942
To Homes	10,747	8,363
To Health Department	2,281	2,386
Miscellaneous	2,098	1,224
No. Baths	523	931

REPORT OF INFANT WELFARE STATIONS.

No. of Stations	3	4
No. of Clinics	152	236
No. of visits	3,049	
No. new babies registered	357	887
Total No. under supervision	1,634	
Prenatal cases under supervision	65	443
Little Mothers Clubs	4	9
Deaths of infants under 2 years	3	1
Children Vaccinated	51	329
Diets		
Breast Fed	806	713
Bottle Fed	219	280
Mixed Feedings	197	136
Mixed Diets	207	313
Solids	30	
Fees received for nursing care	$3.00	
No. pint milk tickets given out		1,137
No. patients given milk tickets		26

REPORT OF NURSING VISITS, CONTAGIOUS DIVISION.

No. of Nurses in Division.	(varies from 1 to 5.)	
No. of Visits in Division	4,087	7062

TOTAL SUMMARY OF NURSES VISITS

Total number of Nurses, all Divisions.	(varies from 13 to 21)	
Total no. calls to homes, all divisions	30,442	28,687

VISITING NURSING WORK

1918.

Number cases under supervision	375
New Cases	1678
Old cases re-admitted	5
Total	2058
Diagnosis of Cases	
Communicable diseases	93
Influenza	575
Tuberculosis	10
Prenatal	27
Cold	20
Pneumonia	61
Nose and Throat	12
Delivered Maternity	24
All others	163

OTHER ACTIVITIES

Ref. for Red Cross Canteen Service	35
Ref. for other Relief and Aid	15
Housekeepers Help	7
Temporary Homes for Children	4

VISITS

To homes	4622
Other	1965
Inv. made for Industrial firm	378
Ref. from Miscellenaous sources	97
Total	7062

MUNICIPAL TUBERCULOSIS DISPENSARY

CLINICAL WORK DURING THE YEAR 1918.

	Adults	Children	Total
No. patients under supervision Jan. 1, 1918	210	118	328
No. new cases examined	298	209	507
No. new home cases received	190	19	209
No. old cases re-admitted	38	18	56
Total cases under supervision	736	364	1100
Patients discharged			
Non Tuberculosis		65	
Refused treatment		15	
Discharged for cause		10	
" to homes		74	
" to B. F. Goodrich Co.		24	
" to other institutions		94	
Springfield Lake Sanatorium	67		
County Infirmary	1		
Mount Vernon	25		
Saranac Lake	1		
Left City, not traced, not found		183	
Other reasons		2	
No. died		73	
Total Discharged			540
No. remaining under supervision Jan. 1, 1919			560
No. clinics held			93
No. patients at clinic			1285
No. patients given milk tickets			46
No. pints of milk given out during year			1423

DIVISION OF COMMUNICABLE DISEASES.

Dr. Charles T. Nesbitt and
Members of the Board of Health.

m The outstanding achievements of this division during the year have been the control of scarlet fever, typhoid fever, diphtheria and small pox and the reporting of venereal diseases, together with the establishment of a clinic for their treatment.

Every case of quarantine breaking in which evidence could be secured was prosecuted.

COMMUNICABLE DISEASE SITUATION.

In spite of better reporting, the incidence of the following diseases were lower during this year than during 1917; mumps, poliomyelitis, measles, erysipelas, cerebro spinal meningitis, diphtheria and trachoma.

A small epidemic of smallpox started in November 1917 and increased until 170 cases were reported in January 1918. By strenuous school and factory vaccination, the disease was held in check and gradually reduced to zero in September.

The control of diphtheria has been effected by rigid culturing of all suspicious sore throats by school nurses and physicians and rigid quarantine of all carriers. Routine medical inspection at the beginning of the school year was very effective in controlling this disease. The use of immunizing doses of anti-toxin which is required to be taken by all contacts with carriers, has proven very effective. Since this policy has been inaugurated, there has occurred no second or third cases in the same house.

Scarlet fever incidence increased to sixty-four cases in April, but by rigid quarantine methods, it was reduced to twelve cases in June.

The seasonal increase of typhoid occurred in August when forty-eight cases were reported. Most of these cases were in the seventh ward and on one milk supply route. Two employees were excluded from handling milk and the disease promptly checked. Polluted wells were also responsible for some of the cases.

The large increase in the number of whooping cough cases reported and the slight increase in chickenpox cases are due almost entirely to better reporting by heads of families and neighbors.

The increased number of tuberculosis cases is due to better reporting which has been greatly stimulated by the activities of the Municipal Dispensary.

A low incidence of communicable diseases occurred in Akron, as elsewhere throughout the country, during the influenza epidemic. This was partly due to the healthier weather conditions prevailing and to the tendency to classify many cases of illness as influenza.

VENEREAL DISEASE REPORTING AND CLINIC.

Beginning July first, the state law became effective requiring the reporting of venereal diseases. The number of these diseases reported during the last four months of the year constituted about 70% of all the cases reported. In September, 324 out of a total of 468 were venereal diseases. A clinic was opened August 12th and clinics are held three times a week, Monday, Wednesday and Friday. The smallpox hospital has been used for hospitalizing syphilitic patients. Some of the cases are from outside of Akron, fifteen being from Barberton. The work done along this line in Akron has been referred to by the State Director of this work as the best in the state.

EDUCATIONAL ACTIVITIES.

Weekly reports were sent to all physicians advising them of the disease situation, and they have been advised from time to time of recent rulings of the State Health Department. Letters were sent to all Druggists advising them of the requirements of the state law which compells the reporting of all cases of persons applying to them for drugs to be used in the treatment of venereal diseases. Physicians have been urged to take cultures more frequently and make larger use of the city laboratory in their work.

Respectfully submitted,

MALCOLM DEAN MILLER.

Director, Division of Communicable Diseases.

COMPARATIVE TABLE SHOWING

COMMUNICABLE DISEASES REPORTED.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Chickenpox													
1918	68	46	27	38	54	14	6	5	2	4	3	13	280
1917	38	29	17	10	15	10	4	-	1	8	44	80	256
Diphtheria													
1918	31	36	44	36	21	22	15	27	24	54	20	13	343
1917	44	50	44	99	135	104	96	42	64	65	35	43	821
Erysipelas 1918	0	1	2	4	-	2	-	-	-	1	1	0	11
1917	3	6	11	9	5	5	1	-	2	1	2	-	45
Gonorrhea													
1918	1	0	1	0	2	6	104	397	249	221	109	134	1223
1917	-	-	-	-	-	-	-	-	2	-	-	-	2
Infantile Paralysis													
1918	-	-	-	-	1	-	1	-	3	-	-	-	5
1917	2	2	-	1	2	4	7	16	14	4	-	-	52
Mumps													
1918	52	68	97	33	42	21	6	1	4	3	3	3	333
1917	30	62	146	105	70	18	12	2	2	22	36	41	546
Measles													
1918	28	58	64	57	58	49	16	3	1	3	3	1	341
1917	30	134	448	395	129	47	11	8	-	3	2	8	1215
Measles-German													
1918	31	134	483	516	293	83	-	-	-	-	-	-	1540
1917	1	-	35	12	164	36	-	-	-	-	-	-	248
Meningitis													
1918	2	2	4	4	-	-	-	2	4	-	1	-	19
1917	2	5	27	67	22	6	3	3	2	4	1	-	142
Ophthalmia 1918	0	3	1	0	0	1	0	4	0	1	-	-	10
1917	-	-	-	1	-	-	-	-	2	1	1	3	8
Penumonia													
1918	2	2	7	1	-	-	2	-	-	28	17	22	81
1917	2	2	4	-	2	-	-	-	1	-	-	-	11
Scarlet Fever													
1918	22	42	42	64	53	36	13	9	6	15	2	10	314
1917	20	19	15	31	21	4	-	4	19	8	19	12	172

(Continued)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Smallpox													
1918	170	92	144	87	69	26	11	5	2	-	-	-	606
1917	4	12	18	8	34	50	48	12	14	20	83	65	368
Syphilis													
1918	0	1	0	-	-	2	41	90	56	70	65	67	392
1917	1	-	-	-	-	-	-	-	-	-	-	-	1
Trachoma													
1918	4	3	1	1	2	2	3	2	3	1	-	3	25
1917	2	3	18	1	5	7	-	4	6	2	2	-	50
Tuberculosis													
1918	23	26	29	29	36	28	38	-	22	24	14	49	318
1917	5	12	13	14	9	14	14	9	21	72	27	12	227
Typhoid Fever													
1918	2	0	0	0	1	2	6	19	48	28	4	3	113
1917	-	-	1	9	13	3	4	15	50	7	3	0	105
Whooping Cough													
1918	30	45	27	15	19	56	74	46	24	25	19	15	395
1917	2	15	7	5	2	5	2	1	23	6	3	12	83

DIVISION OF SANITATION

Dr. Charles T. Nesbitt and
Members of the Board of Health.

The regular routine work consisting of the investigation of complaints, the issuing of orders for the abatement of nuisances and the placarding of quarantined premises has proceeded as usual. In addition to these activities several sanitary surveys of a more comprehensive nature have been undertaken as follows:

A sanitary survey of all the public school buildings was made and a report prepared and transmitted to the Board of Education. This report contained certain recommendations for improving the sanitary condition of the public schools.

A survey of the sewage disposal and water supply of workshops and factories was made. Three shops were found to be using water from polluted wells. These wells were condemmed and the handles removed from the pumps.

Sanitary surveys of certain sections of the city were made in great detail. Enquiries were made as to housing conditions, water supply, flushing, sewer connections disposal of garbage and rubbish, stables and disposal of manure. In connection with these surveys, thirty-four trash and garbage dumps were discovered and permanent notices were posted prohibiting the dumping of garbage at these places.

The detailed findings of these sectional surveys are given as follows:

Section Surveyed	Furnace St. North St. Hickory St. Along river on Cuyahoga St. & Lods St.	East of Arlington St. between S. Case Ave. & 7th Ave.	North Case Ave & Wellington St.	Edgewood Rhodes Hollowayy Bell Sts. between Euclid, Wooster and Bowery Sts.	Miller Ave. & Cole Ave.
HOUSING CONDITIONS					
Stores	21				
Dwellings	572	700	148	315	343
Stores connected with buildings	16				
Rooms	2911	4435	903	2091	1648
Occupants	3084	4177	1113	1717	2480
Occupants per dwelling	5.39	5.9	7.9	5.4	7.2
Americans	40.8%	66.6%	33.9%		55.5%
Italians & Poles	40 Foreign	31.4	63.1		44.2
Colored	19.2	2.0	3.0		3.0
WATER SUPPLY					
City Water	54.0%	51.7%	40.0%	67.7%	68.8%
Cistern Water	24.8	22.9	32.6	17.6	12.0
Driven Well water	9.3	21.8	23 4	12.9	19.2
Dug Well	7.6	3.6	4.0	1.8	
Spring Water	4.6				
Using fine water	54				
Using questionable water	46	48.3	60		
SEWAGE DISPOSAL					
Sewer Connections	50.5	56.3	37.3	69.2	24.7
Privy Vaults	28.8	42.7	57.5	31.8	77.0
Dry Sewer toilet in yard	17.5	1.0	5.2		25
Dry Sewer toilet in house	3.2				
% having unsanitary method	49.5				
GARBAGE DISPOSAL					
Covered Cans	30	32.0	6.3	74.3	49.7
Use Boxes	10	12.0	17.7	13.2	98
Throw on ground	60	56.0	76.0	12.5	40.5
TRASH DISPOSAL					
Covered cans	4		2.6	4.8)	
Use boxes or piles	18	26.4	21.0	36.4)	31.3
Throw on ground	78	73.6	76.4	58.8	68.7
STABLES					
Stables	14	4	2	16	4
Use bins for manure	3	2		3	
In piles	11	2	2	13	
Time removed	7 to 12 days	6 to 12 month	3 to 7 days		7 da. to 6 mo.
RATING					
Water Supply Total		13.76	11.97	15.51	16.28
City Water 100					
Cistern 25					
Driven Well 50					
Dug Well 0 20					
Sewage Disposal		31.20	26.94	30.56	33.20

Section Surveyed		Furnace St. North St. Hickory St. Along river on Cuyahoga St. & Lods St.	East of Arlington St. between S. Case Ave. & 7th Ave.	North Case Ave & Wellington St.	Edgewood Rhodes Holloway, Bell Sts. between Euclid Wooster and Bowery Sts.	Miller Ave. & Cole Ave.
Plumbing	100					
Privy Vault	50					
Dry Sewer	25	40				
Dry Sewer in house	0					
GARBAGE DISPOSAL			11.40	4.5	24.77	16.30
Covered Can	100					
Box	50	30				
Ground	0					
TRASH DISPOSAL			2.64	1.31	4.12	3.13
Box	100					
Ground	0	10				
		100				
Rating of section		51.76%	59.00	44.72	74.76	69.55

Rooms	Occupied
7	20
9	23
7	17
2	15
5	12

In area between Cole Ave., Stanton Ave., Sweitzer Ave., and Andrus St., there are 17.36 acres. In this section there are 109 dwellings and 42.8 persons to the acre.

STATISTICAL REPORT OF

DIVISION OF SANITATION.

Inspections on Sanitary Survey	2613	
Inspections General	1633	
Reinspections	2488	
Complaints Investigated	3440	
Total inspections or visits	10174	
Notices served		
Written	1630	
Verbal	1211	
Telephone	279	
Total notices served	3120	
Nature of Nuisances ordered abated		Nuisances abated
Clean Privy	335	233
Remove Garbage	611	305
Clean Yard	675	340
Remove Manure	93	46
Clean Toilets	113	23
Repair Plumbing	89	68
Clean Sewer	129	123
Furnish Water	112	29
Abandon Sewers	24	
Remove privy	99	106
Install Sewerage	257	140
Dry Sewers	16	14
Close Well	42	22
Install City Water	128	113
New vault ordered	4	9
Vaults repaired	10	10
Furnished covered garbage cans	398	230
Furnished trash receptavles	6	7
Furnished fly proof manure bin	59	24
Remove hogs	16	18
Other nuisances	132	131
Total orders issued	3348	1991

OTHER ACTIVITIES

Septic tanks inspected	66	
Garbage signs posted	199	
Visits on Vital Statistics	26	
Visits on Quarantine	27	
Water samples taken	83	corrections
Flue connections made for gas stoves	1421	made 1039
Street cars cleaned		2
Bowling Alley Closed		1
	1822	1042

51 persons ordered to office
16 cases were referred to Prosecutor
7 of which were referred to Court
2 for failure to remove privy and install sewer
3 for burying night soil
1 for dumping night soil in river
1 for refusing to clean privy

Drafting work was done in connection with the preparation of plans for a new contagious disease hospital, and in connection with charting the information obtained by the Sanitary surveys, charts were prepared showing graphically the Influenza Epidemic.

Respectfully submitted,

JOHN M. MATHERS
Director, Division of Sanitation.

DIVISION OF

DAIRY AND FOOD INSPECTION.

Dr. C. T. Nesbitt and
Honorable Members of the Board of Health.

Herewith find the annual report of the Dairy and Food Division for the year of 1918. During the months of March and April there were no records of any work done by the inspector in charge during that period. I also wish to call your attention to the work done during the month of November. Owing to the illness of the late Dr. Babcock, I was unable to make a report for him during that month. During the months of October, November and December on account of the Influenza Epidemic, Dr. Babcock and myself was required in the Laboratory and Armory Emergency Hospital for 36½ days.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Bakeries		4			14	33	13	15	15	46	31	36	207
Bakery Wagons						12	20			5			37
Bottling Plants												2	2
Candy Factories					11	8	4	1	8	3	7	12	54
Confectioneries					14	48	29	51	22	4	5	14	187
Cold Storage Plants						5			3			2	10
Creameries					3	4	3		2				12
Dairies					22	14	6		12			8	62
Fish Markets					11	9	7	4	3	9	2	5	50
Groceries		12			25	206	96	105	84	15	85	31	659
Ice Cream Factories					5	12	6	9	2	3	5	3	45
Meat Markets		16			12	68	64	65	55	33	47	27	387
Milk Depots					27	11			9	9			56
Milk Wagons					31	8	46	10	10				105
Pasteurizing Plants					9	5	6	4	6	5		5	40
Produce Stands F.& V.					8	20	37	3	18		2	11	99
Restaurants	3	9			66	92	62	95	69	33	54	41	524
Slaughter Houses					4	3	4		3	20			34
Ice Cream Wagons						48							48
Visits on Complaints	5	40			22	7	22					8	104
TOTAL INSPECTIONS	8	81			284	613	425	362	321	185	238	205	2722
Changes ordered	5				13	8	25	10	17	43	18	12	146
Reinspection com.with					10	1	19	6	10	8	13	12	79
Not. Comp. time not up					3	7	6	4	7	30	5		62

RABIES INVESTIGATION

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Rabies investigated	41	54					66	343	281	160	3	43	991
Dead Animals removed	35	55					10						100
Pastuer treatment given		3			2	2	15	5	19	23	9	6	84
Dogs Killed	61	62											123
TOTAL	137	174			2	2	91	348	300	183	12	49	1298

Very respectfully,

G. E. MAGUIRE.

ANNUAL REPORT

DEPARTMENT OF PUBLIC HEALTH

Division of Laboratories

1918.

	Pos.	Neg.	Res.	Total
Direct smears for Diphtheria Bacilli	26	129	27	182
Diagnosis	124	568	12	704
Quarantine release	327	1394	0	1721
Contact with case	116	1685	2	1803
Carrier release	145	315	1	461
Contact with carrier	19	312	0	331
Sore throat suspect, school	17	216	0	233
Sore throat, not suspected school	74	2501	2	2577
Room school inspection	3	226	1	230
Adult sore throat, not suspected	53	1138	N 16	1207
Total Diphtheria Work	904	8484	61	9449
Sputa for T. B.	115	465	1	581
Sputa for Pneumonia	0	-0	0	0
Blood cultures for Typhoid and Paraty	1	5	0	6
Widals for Typhoid	36	192	22	250
" " Paratyphoid A	16	228	6	250
" " " B	31	202	17	250
Urines for Typhoid	0	1	0	1
Feces for Typhoid and Paratyphoid	1	0	0	1
" examination general	0	1	0	1
Urethral vaginal pus for Gonococci	61	322	8	391
Spinal fluid for Meningococci	7	22	0	29
" " " T. B.	1	11	0	12
Eye smears	0	1	2	3
Urine examination general	22	60	0	82
Wasserman test	0	0	0	0
Rabies	24	1	0	25
Milk examinations	0	0	25	25
Miscellaneous	12	16	16	44
Total miscellaneous work	327	1527	97	1951
Grand Total of all work for 1918 - - -	1231	10011	158	11400

Monthly average 963

Daily Average 31.5

JAMES M. LAUDRY.

REPORT OF

THE CONTAGIOUS DISEASE HOSPITAL

for 1918.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Under treatment first of month	14	22	14	30	15	9	10	9	3	7	4	4	141
Number admitted	60	43	84	44	47	34	25	5	20	11	28	20	421
Number dismissed	52	51	68	60	53	33	26	11	16	14	37	18	439
Under treatment end of month	22	14	30	14	9	10	9	3	7	4	4	6	132
Nature of Disease													
Scarlet Fever	17	4	10	20	17	7	4	3	--	2	1	4	89
Diphtheria	16	8	22	9	7	13	11	2	18	8	7	4	125
Membraneous Croup													
Small Pox	40	30	51	12	23	13	9	-	-	-	-	-	178
Septic Sore Throat	-	-	-	1	-	-	-	-	-	-	-	-	1
Specific	-	-	-	-	-	-	-	-	-	-	19	12	31
Mistaken Diagnosis	1	1	1	2	-	1	1	-	2	1	1	-	11
Receipts	141.50	94.30	251.65	317.25	276.40	10.00	202.05	111.75	89.35	179.80	81.90	62.80	1818.75

REPORT OF THE CITY CHEMIST for 1918.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Chemical examinations													
Milk analysis		6				10	61	14	2				93
Water													
Industrial	40	32	36	22	39	24	39	26	28	38	22	28	374
City Tap Water	27	24	26	26	26	23	23	24	24	25	24	25	297
Private Supplies	1	6	18	6	29	29	23	8	36	23	8		179
Miscellaneous	7			4	4	3	7	6	6	4	1	5	47
Wells showing evidence of sewage polution		2	5	1	3	10	6	6	14	10	4	2	63
Wells satisfactory		3	4	3	17	11	8	11	18	8	4	3	90
Wells questionable or suspicious					4	4	7	2	2	1			20
													1163

CLASSIFICATION OF DEATHS.

DEATHS FROM GENERAL DISEASES.

	1916	1917	1918
Typhoid Fever	20	32	31
Septicaemia	13	10	11
Scarlet Fever	4	3	5
Whooping Cough	28	14	12
Diphtheria	23	73	27
Measles	43	22	1
Influenza	-	-	630
Pulmonary Tuberculosis	69	102	102
Syphilis	-	-	10
Cancer	71	60	54
Diabetes	16	12	10
Alcoholism (acute or chronic)	-	-	15
Membranous Croup	2	-	-
All Others	135	153	35
Total	424	481	943

DEATHS FROM DISEASE OF NERVOUS SYSTEM.

Meningitis	14	100	38
Cerebral Hemorrhage	19	47	81
Paralysis (without specified cause)	6	4	6
Infantile Paralysis	4	19	-
Apoplexy	12	16	-
All others	33	34	23
Total	88	220	148

DEATHS FROM DISEASES OF THE CIRCULATORY SYSTEM.

Organic diseases of heart	55	92	176
Angina Pectoris	-	-	11
Diseases of the Arteries	91	63	44
Embolism	-	-	12
All others	64	84	6
Total	210	239	249

DEATHS FROM DISEASES OF THE RESPIRATORY SYSTEM.

Acute Bronchitis	11	7	7
Chronic Bronchitis	-	7	11
Bronchopneumonia	90	104	101
Lobar Pneumonia	113	151	177
All other pneumonia	8	20	-
All others	33	25	25
TOTAL	255	314	321

(Continued)

DEATHS FROM DISEASES OF THE DIGESTIVE SYSTEM.

	1916	1917	1918
Diarrhea and enteritis	59	85	93
" " " (2 years &over)	-	-	11
Appendicitis	8	16	21
Hernia	-	..	19
Peritonitis	15	13	15
Other diseases of the stomach	3	8	15
Cholera Infantum	30	34	-
Entero Colitis	9	13	-
All others	90	108	39
Total	214	277	213

DEATHS FROM DISEASES OF THE GENITO URINARY SYSTEM.

Acute Nephritis	48	42	20
Bright's Disease	8	25	56
Other Diseases of the Kidneys	-	-	5
Uraemic Poisoning	1	2	4
All others	28	23	4
Total	85	92	85

DEATHS FROM EXTERNAL VIOLENCE.

Suicides	8	13	13
Accidental Drowning	-	-	15
Homicides	-	-	27
Fractures	47	82	8
All others	122	124	113
Total	177	219	176

DEATHS FROM ALL OTHER CAUSES.

Puerperal	26	46	33
Diseases of the Skin &Cellulartissue	11	6	10
Diseases of the Bones	5	2	6
Malformation	32	29	15
Diseases of Early Infancy	58	61	203
Old Age	23	17	9
Ill Defined	1	22	9
Unknown	1	-	-
Total	157	183	285
Total deaths from all causes (excluding still births)	1610	2025	2420

(Continued).

DEATHS BY AGES.

	1916	1917	1918
Under one year	337	397	481
One to five years	160	236	199
All others	1113	1392	1740
Total	1610	2025	2420
Still Born	245	286	198

DEATHS BY WARDS.

Ward 1	154	203	187
2	329	378	144
3	122	123	134
4	315	329	232
5	256	289	328
6	180	365	346
7	145	243	296
8	109	95	153
Armory Hospital			44
City Hospital			258
Peoples Hospital			267
Contagious Disease Hospital			17
Children's Hospital			73
Unknown			1
Total	1610	2025	2420

DEATHS BY NATIVITY

Ohio	882)	1548	1259
Other States	320)		555
Foreign	408	477	606
Total	1610	2025	2420

DEATHS BY SEXES.

Male	880	1239	1337
Female	730	786	1083
Total	1610	2025	2420

(Continued.)

DEATHS BY COLOR.

	1916	1917	1918
White	1579	1983	2361
Colored	31	42	58
Yellow			1
Total	1610	2025	2420

DEATHS BY CONDITION.

Single	760	1050	1125
Married	581	840	1011
Widowed	225	72	249
Divorced	22	28	17
Unknown	22	35	18
Total	1610	2025	2420

DEATH RATE.

Estimated Population	140000	150000	160000
Deaths	1610	2025	2420
Death Rate per 1,000 based on estimated population	11.5	13.5	15.1

BIRTHS.

Male	1902	2434	2421
Female	1833	2294	2313
Total	3735	4728	4734
Deaths under one year	337	397	481
Infant death rate per 1,000 births	90	84	101.6